

5-11-72
a

UNIVERSITY

INIA

1907

This book is **DUE** on the last date stamped below.

REPORT
OF
THE COMMISSION TO INVESTIGATE
THE EDUCATIONAL SYSTEM AND CONDITIONS
OF VERMONT



1914

36 403

THE VERMONT PRINTING COMPANY, BRATTLEBORO

CONTENTS

	PAGE
I. INTRODUCTION	1
II. SUMMARY	5
III. THE COMMON SCHOOLS	9
1. Elementary Schools	14
2. Secondary Schools	21
3. The School Term	31
IV. SPECIALLY INCORPORATED DISTRICTS	33
V. COUNTY GRAMMAR SCHOOLS AND GRAMMAR SCHOOL LANDS	34
VI. VOCATIONAL EDUCATION	35
VII. TRAINING OF TEACHERS AND SUPERVISION	43
VIII. AGENCIES FOR ADMINISTRATION	50
IX. UNIVERSITY OF VERMONT AND STATE AGRICULTURAL COLLEGE	56
1. Its Character—Public or Private	56
2. Use of Federal Appropriations	91
3. The College of Medicine.	119
X. MIDDLEBURY COLLEGE	123
XI. NORWICH UNIVERSITY	125
XII. DUPLICATION	128
XIII. THE STATE AND HIGHER EDUCATION	132
XIV. FINANCIAL SUPPORT OF SCHOOLS	137
1. History of State School Funds	137
2. Appropriations and Distribution of Expense.	140

I
INTRODUCTION

TO HIS EXCELLENCY, ALLEN M. FLETCHER,
GOVERNOR OF THE STATE OF VERMONT:

ON the eighth day of November, 1912, by communications to the Senate and House of Representatives, Your Excellency submitted to their consideration certain suggestions regarding public education and recommended the creation of an Educational Commission charged with the duty of making inquiry thereinto for the purpose of securing legislation for such reorganization of the elementary and secondary public schools of the state, in adjustment to the entire educational system of the state, as would promote the ends of economy, harmony and unity. In view of the constant requests of our institutions of higher learning for increasing state appropriations for their support and maintenance and the importance that the status of these institutions in their relations to the state should be clearly and speedily established, it was your further recommendation that such Educational Commission be required to report on the several necessities of the University of Vermont and State Agricultural College, Middlebury College and Norwich University, with such suggestions as would prevent unnecessary duplication.

Pursuant to your communications the General Assembly enacted the following joint resolution:—

"Whereas, a doubt has arisen in the minds of many of those most intimately related to the secondary and elementary schools of the state as to the efficiency of our common school system, and

"Whereas, a similar doubt prevails among many friends of higher education regarding the adequacy of the return which the state is getting from its appropriations in aid thereof, and

"Whereas, His Excellency, the Governor, has recommended in a recent message the appointment of a commission to investigate and report on these matters; Therefore it is hereby

"Resolved by the Senate and House of Representatives: That a commission of nine persons, at least two of whom shall be experts in or engaged in educational work, shall be appointed by the Governor to inquire into the entire educational system and condition of this state. This commission shall report at the earliest possible date on the several rights, duties and obligations of the University of Vermont and State Agricultural College, Middlebury College and Norwich University with such recommendations as will prevent unnecessary duplication and consequent financial waste.

Donation - 1921

“Resolved, That as soon as practicable after reporting on the institutions of higher learning hereinbefore referred to, the said commission shall recommend, by bill or otherwise, such reorganization of our public elementary and secondary schools, in adjustment to the entire educational system of the state, as will promote the ends of unity, harmony, economy and efficiency.

“Resolved, That the members of said commission shall serve without pay, but they shall be paid by the state their necessary expenses on requisitions to be approved by the Governor and chairman of said commission, and the Auditor of Accounts shall draw orders therefor. Said commission may employ expert assistance and include the expense thereof in said requisitions.” This resolution was approved November 19, 1912.

Later by section 14, of Number 83, of Laws of 1912, approved February 15, 1913, it was enacted that, “the several rights, duties and obligations of said colleges shall be determined by said Commission.”

The undersigned, by your appointment members of the Commission to Investigate the Educational System and Conditions of Vermont, (herein styled “Commission”) created by said joint resolution, respectfully report as follows:

The first meeting of the Commission was held Thursday, December 12, 1912, and an organization effected. George L. Hunt, of Montpelier, was chosen clerk of the Commission. Early in its work it became clear to the Commission that in the proper performance of its duties, the entire educational system and conditions of the state could receive adequate consideration only as a unit. It was clear, too, that just conclusions could be drawn only from right premises and that these premises could be stated only after a thorough and comprehensive knowledge of the facts relating to the state’s educational system and conditions. By its resolution the General Assembly authorized the Commission to employ expert assistance and it seemed not only proper, but also necessary that a body of experts, and not merely individual expert investigators, be called upon to assist in assembling facts material and relevant to the problems submitted to the Commission. To this end, therefore, the Commission, by a resolution adopted on the 24th day of February, 1913, authorized an educational survey of the state and appointed Dr. Henry S. Pritchett, President of the Carnegie Foundation for the Advancement of Teaching, to undertake this survey with such assistance and cooperation as he might determine. It seemed essential, too, that those to make the survey should be entirely disinterested as between persons or institutions to be affected by its results. The Commission wanted the facts: to hew to the line and let the chips fall when they would in its seeking after the truth of the educational conditions of the state. At the outset Dr. Pritchett and his lieutenants in the survey were made aware of this requirement.

The administrative and educational experience of Dr. Pritchett, who was formerly President of the Massachusetts Institute of Technology and before that Superintendent of the United States Coast and Geodetic Survey, gave assurance

of a thorough-going and appreciative insight into our educational system and the choice by him of men well fitted by training and association to assist in the work of the survey. Dr. Clyde Furst, the Secretary of the Carnegie Foundation, was formerly a professor in and secretary of the faculty of Teachers College, Columbia University. Mr. Monell Sayre, a Harvard man and a graduate in law, is a specialist in college charters, pensions, and in agricultural education. Dr. Alfred Z. Reed, a graduate of Harvard and a Doctor of Philosophy of Columbia University, is an expert on the staff of the Carnegie Foundation. Professor Edward C. Elliott, who gave particular attention in the survey to the general organization of public education and to the training of teachers, is the head of the department of education in the University of Wisconsin and has been connected with educational surveys throughout the country. Professor Milo B. Hillegas, who studied particularly the elementary schools of the state, is a professor in the field of elementary education at Teachers College, Columbia University, and was formerly editor of the publications of the United States Bureau of Education. Dr. William S. Learned, who paid particular attention in the survey to secondary education, a graduate of Brown University and a Doctor of Philosophy at Harvard, was formerly engaged in the experimental study of education conducted by Harvard in connection with the schools of Newton, Massachusetts, and is now an expert on the regular staff of the Carnegie Foundation. Professor Edward N. Farrington, who has been giving particular attention to the study of agricultural education, is the head of the department of dairying at the University of Wisconsin, and has been the instrument of multiplying the dairying in that state several fold. Professor George R. Olshausen, who directed his attention to the study of engineering education in the state, has been professor of engineering in the Worcester Polytechnic Institute and in Washington University, Saint Louis. Dr. Nathaniel Bowditch Potter, a professor of medicine in the College of Physicians and Surgeons of Columbia University, gave his attention to the study of medical education. Mr. William Leslie, head of the firm of Leslie & Company, chartered accountants of New York, studied the subject of school accounts and accounting.

In the gathering of facts these men worked along the line of their particular subjects; in the assembling and correlation of the minutiae of fact thus obtained, they were collaborators in the work of the survey. At frequent conferences of those engaged in the survey, each was required to reconcile his views with the views of the others and to draw his conclusions from the findings of all. The result of their labors is set forth in the report of the Carnegie Foundation for the Advancement of Teaching to the Commission hereto attached.

Beyond the survey so provided, the Commission sought in divers ways to learn the facts relating to Vermont's educational system and conditions. In the furtherance of the work of the survey, by inquiries addressed to each teacher in the public schools and principals of secondary schools, it secured information respecting the teaching staff and the work of the elementary and secondary schools, and by as-

sembling the school registers of the different towns and cities in the state it assisted in the study of school attendance. It sought and obtained from over two thousand citizens of the state—union and town superintendents of schools, principals and teachers, school directors, and men and women of standing in their respective communities in no way connected with the schools—their views concerning the educational conditions of the state. On January 9, 1913, the Commission held a public meeting in Representatives' Hall, at which all present were given opportunity to speak on those matters submitted to it relating to the elementary and secondary schools. During the month of June, 1913, the Commission visited the University of Vermont and State Agricultural College, Middlebury College and Norwich University for the purpose of seeing what might be shown and hearing what might be said in addition to the matters and things set forth in briefs already received from them in response to the Commission's request therefor, by which each of these institutions was given an opportunity to show: (1) The functions, rights, duties, and obligations of the particular institution in any wise respecting or pertaining to the State of Vermont; (2) The relation, if any, of these three institutions to each other; (3) All facts, historical or otherwise, pertaining to said institutions, or any of them, upon which the particular institution bases its claim to assistance from, or support by, the State of Vermont. The Commission also visited at this time, and inspected, the State Normal Schools at Castleton and Johnson and the State Agricultural School at Randolph, and examined Mr. Vail's agricultural school at Lyndonville. On August 12, 1913, certain citizens and representatives of organizations of Addison and Rutland counties interested in agricultural education met and addressed the Commission at Burlington on the question of the need of agricultural schools through the state. On March 6, 1914, the Commission extended a further hearing to the University of Vermont and State Agricultural College. President Guy Potter Benton, Dean Henry C. Tinkham, Treasurer C. P. Smith, Chief Justice George M. Powers, Honorable Robert Roberts and Honorable E. C. Mower, Trustees, appeared in behalf of that institution and the Commission was addressed by President Benton, Chief Justice Powers, Treasurer Smith and Mr. Roberts. On March 20, 1914, a like hearing was extended to Norwich University and Middlebury College. In behalf of the former, President Charles H. Spooner and Colonel Fred B. Thomas addressed the Commission. President John M. Thomas and Honorable Frank C. Partridge, Fellow, addressed the Commission in behalf of Middlebury College. Furthermore, members of the Commission, by individual inquiry, have sought and obtained information respecting the state's educational conditions. Not alone upon the report of the Carnegie Foundation, therefore, but upon the knowledge and information obtained in the ways set forth, the Commission bases its conclusions and makes its recommendations.

It is the purpose of the Commission in its report to deal with the educational policies of the state, including regulations necessary to their effective operation, and with details of fact as may be necessary to make plain the matters and things

recommended; and to deal with facts pertaining to the institutions of higher learning only so far as such facts shall bear on recommendations to be made concerning them, or so far as shall be necessary to the determination of their several rights, duties, and obligations.

II

SUMMARY

As a foreword, the Commission deems it wise to set forth briefly the following summary of its conclusions and recommendations:

Under our Constitution schools must be competent in number and in instruction convenient for the youth, a sovereign duty of the commonwealth to all its youth, a duty always recognized by the judicial department of the government and in a large measure performed by the legislative department of the government. With the changes in the social and economic life of the people that have occurred since the founding of the state, these fundamental requirements of law respecting schools have been to some degree overlooked, and present defects in the system of public schools are due almost wholly to the failure to adapt such requirements to modern conditions.

ELEMENTARY SCHOOLS

In the elementary schools such a want of adaptation is especially apparent in the rural schools, not only in their distribution throughout the state but in the quality of their work. The Commission recommends that rural schools, so far as practicable, be consolidated and that their courses of study be revised to the end that the instructions given, not only in method but in content, may be suited to the daily life and environment of the youth.

SECONDARY SCHOOLS

This lack of adaptation appears more prominently in the state's secondary schools, due to the fact that the secondary schools are not closely related to the elementary schools and that, for the benefit of about one-tenth of the youth of secondary-school age, they are chiefly preparatory schools for higher education and not, for the benefit of the remaining nine-tenths of the secondary-school youth, finishing schools for life. To restore the secondary schools to their rightful place as a part of the public school system, closely related to the elementary schools, and agencies for the convenient instruction of all the youth of the state, the Commission recommends a change in the point of division between them and the elementary schools as follows:

(a) That there should be a junior high school maintained in every town in the state (unless by arrangement an academy in town is in effect the high school of the town) where the number of secondary-school youth to be conveniently accommodated shall reasonably warrant it, having (in the language of the Carnegie Foundation's report, page 109), "a four-year curriculum, elastic in administration, but limited in scope by the numbers and needs of the local boys and girls 12 to 16 years of age, covering the seventh and eighth grades of the present elementary school and the first two years of the present high school," with equipment appropriate to the curriculum presented;

(b) That there should be as many central and readily accessible senior high schools, articulating directly with all the neighboring junior high schools, as the number of pupils desiring the advanced instruction given only in this class of schools, shall reasonably demand, the number and locations to be determined by the board of education. These should have: (a) A four-year junior curriculum as in the junior high schools, "but including special vocational opportunities, particularly in agriculture, for pupils from 12 to 16 years of age;" (b) A curriculum appropriate to the youth of 17 to 19 years of age, drawn from the surrounding districts, who are fitting for college, or are completing a course of general education. This class of schools should have adequate equipment for all purposes within the curricula.

The Commission finds that by increasing the length of the school term to thirty-six weeks—about the average for the country—nearly two full school years of the present length will be added to the public schooling of the youth; and the Commission recommends such an increase.

The Commission also recommends that all specially incorporated school districts be dissolved and that such districts be brought under the operation of general laws common to all parts of the state.

VOCATIONAL EDUCATION

The Commission believes that the vocational needs of the state are mainly agricultural and that vocational education should be emphatically directed to the training of the youth of the state in scientifically practical agriculture.

The Commission's recommendations respecting vocational education may be summarized as follows:—

1. The instruction in the public schools to be of that character to educate the youth toward the occupations of the communities in which they live.

2. The establishment in the junior high schools of semi-vocational courses offering opportunities for instruction in commercial subjects, domestic science, manual

training, and agriculture, appropriate to the needs and environment of the particular school.

3. The establishment in the senior high schools of high grade courses in agriculture, together with courses in manual training, commercial subjects and domestic science.

4. The strengthening of the equipment and teaching staff of the State Agricultural School and the increase of its appropriations; and the development therein of courses in manual training, incident to agricultural training, and in some measure fitting for the pursuit of the manual trades as vocations.

5. State appropriations, to be expended under an arrangement with the University of Vermont and State Agricultural College, for the purpose of: (*a*) Training teachers in agriculture for the high schools; (*b*) Cooperating with the Federal extension work in agriculture.

TRAINING OF TEACHERS

The discontinuance of the normal schools at Castleton and Johnson and the development of the training courses in the secondary schools, for the training of teachers for the elementary schools and the earlier years of the junior high schools, is recommended. By reason of the peculiar value to Vermont of secondary-school teachers trained in the state, the Commission recommends that provision for the training of such teachers be made through an arrangement by the state board of education with Middlebury College; and that provision for the training of secondary-school teachers of agriculture for the senior high schools and the State Agricultural School be made through an arrangement by the state board of education with the University of Vermont and State Agricultural College.

ADMINISTRATION

The Commission recommends agencies for administration adequate to the operation of the public school system under the proposed reorganization.

STATE AID TO HIGHER EDUCATION

The Commission finds that all institutions of higher learning within the state are private institutions and not entitled of right to state aid. The Commission finds that Vermont should not give financial aid to institutions of higher learning until it has performed its full constitutional duty to its public schools, and that all state aid to such institutions, for the present at least, should be extended only in return for the performance by such institutions of some specific service

needed by the state in the carrying out of its policies respecting the elementary and the secondary schools. The Commission finds that the state, in proportion to its property valuation, has been making appropriations to higher education far beyond those made by any other of the New England states or by the state of New York. In proportion to its property valuation Vermont is appropriating to institutions of higher education 1.7 times the appropriation of Maine, nearly three times the appropriation of Connecticut, more than four times the appropriation of New Hampshire, more than eight times the appropriation of Massachusetts, more than nine times the appropriation of Rhode Island, more than thirty-four times the appropriation of New York; and if appropriations in New York, by way of scholarships, provided by recent legislation, are included in the maximum amount provided by such legislation, still Vermont is appropriating more than twenty-eight times the appropriation of New York.

The Commission finds that in so discontinuing state aid to higher education the state is in no way laying itself open to a charge of failure of duty to its youth and that a continuance of such appropriations in present amount would be a gross neglect of such duty under the Constitution.

USE OF FEDERAL APPROPRIATIONS BY THE UNIVERSITY OF VERMONT AND STATE AGRICULTURAL COLLEGE

The Federal appropriations to land-grant colleges for instruction in agriculture and mechanic arts are owned by the state and have been expended by the University of Vermont and State Agricultural College in the carrying out of the provisions of the trust imposed upon such appropriations. The Commission does not find that in the expenditure of the appropriations received under the first Morrill Act (1862), and the Acts of Congress pertaining to agricultural experiment stations, the University of Vermont and State Agricultural College has deviated from the course contemplated by those acts. The Commission finds, however, that in the expenditure of the appropriations received under the Acts of Congress of 1890 and 1907, the University of Vermont and State Agricultural College has departed from the true spirit, intent, and meaning of such trust, in this, that said institution has not expended said funds in instruction in the branches named in said acts with special reference to their applications in the industries of life, as they exist in this state, and to the facilities for such instruction, as required, in that a disproportionately small part thereof has been applied to agriculture, Vermont's predominating industry of life.

WAYS AND MEANS

The financial support of schools is discussed and recommendations made.

III THE COMMON SCHOOLS

IN an investigation of the entire educational system and conditions of the state, no one part of the system can be treated separate from the others. They are all parts of one structure and the foundation upon which it rests is the first and most important subject of investigation. Of what value is a superstructure reared upon sand? Towers and turrets must be broadly bedded in rock. Unquestionably that part of our educational system that pertains to the elementary schools is the foundation of the whole. It must first be made sound. This done, the upper reaches of the structure must be brought into harmony not only with the lower walls but with the environment in which it rests. As the environment of one state differs from that of another, so environment within the state varies. Although Vermont has no large cities, there is necessarily a difference between urban and rural environment within her borders, and her natural conformation is responsible for marked differences of environment in her rural sections. Some of the farming districts are more thickly settled and easily accessible, others are remote and sparsely populated. No particular section of the state can be considered alone. The state must be considered as a whole. Her educational system of organization is the town system. The Commission here undertakes to deal with that system, and by way of change in regulations, and a reorganization, to promote educational advantages throughout the state. That regulations can be had that will operate to the equal advantage of all, regardless of circumstances and conditions, is too much to expect. Yet such advantages can be afforded to an approximate and reasonable degree by properly applying the just and fundamental principle that regard must be had to securing the greatest possible accommodation and advantage to the greatest number of inhabitants, though it may necessitate more exertion on the part of the smaller number to avail themselves of the opportunities offered.

For a proper view of the educational system and conditions of Vermont regard must be had to the state's sovereign duties and obligations. The Declaration of the Rights of the Inhabitants of the State of Vermont, a part of the Constitution, declares that all men are born equally free and independent, and have certain natural, inherent, and unalienable rights, among which are the enjoying and defending life, and liberty; acquiring, possessing, and protecting property; and pursuing and obtaining happiness and safety; that the people of the state, by the legal representatives, have the sole, exclusive, and inherent right of governing and regulating the internal police of the same; that government is or ought to be, instituted for the common benefit, protection, and security of the people, nation or community; and not for the particular emolument or advantage of any single man, family, or set of men, who are a part only of that community; that frequent recurrence to fundamental principles, and a firm adherence to justice, moderation, temperance,

industry and frugality, are absolutely necessary to preserve the blessings of liberty, and keep government free.

In providing organic machinery for the application of these basic principles of law to the government of the state, the fathers of the constitution were well aware that the public good, the public welfare, and the public convenience were considerations of first importance, that the encouragement of virtue and the prevention of vice and immorality would go far toward securing an adequate regulation of the internal police of the state, and that for the gaining of these ends nothing was more potent than the proper instruction of the youth.

The first Constitution of the State (1777). Chapter II, Section 40, reads:—

“A School or Schools shall be established in each town by the Legislature, for the convenient Instruction of Youth, with such Salaries to the masters, paid by each town, making proper Use of School-lands in each town, thereby to enable them to instruct Youth at low Prices:—One Grammar School in each County, and one University in this State, ought to be established by Direction of the General Assembly.”

Section 41 reads:—

“Laws for the Encouragement of Virtue, and Prevention of Vice and Immorality, shall be made, and kept constantly in force; and Provision shall be made for their due Execution: And all religious Societies, or bodies of men, that have, or may be hereafter united and incorporated, for the Advancement of Religion and Learning, or for other pious and charitable Purposes, shall be encouraged and protected in the Enjoyment of the Privileges Immunities and Estates, which they in justice ought to enjoy, under such Regulations as the General Assembly of this State shall direct.”

In the Constitution of 1786, some of the foregoing provisions were dropped out, and the two sections united into section 38, reading as follows:—

“Laws for the encouragement of virtue, and prevention of vice and immorality, ought to be constantly kept in force, and duly executed: and a competent number of schools ought to be maintained in each town, for the convenient instruction of youth; and one or more grammar schools be incorporated, and properly supported, in each county in this State. And all religious societies, or bodies of men, that may be hereafter united or incorporated, for the advancement of religion and learning, or for other pious and charitable purposes, shall be encouraged and protected, in the enjoyment of the privileges, immunities, and estates, which they in justice ought to enjoy, under such regulations as the General Assembly of this State shall direct.”

Without change in substance, these provisions have hitherto remained a part of the organic law of the state. Whatever may have been the contemplated character (public or private) of the grammar schools mentioned in the Constitution of 1777, it seems clear that the grammar schools mentioned in the section quoted from the Constitution of 1786, to “be incorporated, and properly supported, in

each county," were, in contemplation, like academies, simply private institutions.

Within the succeeding twenty-five years, at least one of these county grammar schools in each county, except perhaps Grand Isle, was incorporated and supported by the state by way of the "Grammar School Lands" in the same county, granted to it by the General Assembly to hold and lease for its use and benefit. There seems never to have been any statute giving such schools public support by way of taxation or otherwise, in addition to that derived from the "Grammar School Lands." These lands are more particularly noticed in another connection.

The clause of the Constitution, then, essential to our consideration at this time is the one reading, "A competent number of schools ought to be maintained in each town, for the convenient instruction of youth."

It will be noticed that by this clause of the Constitution schools must be *competent* in number, and in instruction must be *convenient* for the youth. In the judgment of the Commission, the word "competent" as there used, means "adequate, sufficient," and the word "convenient," as there used, means "affording accommodation, advantage." This is in accordance with the contemporaneous practical construction given by the legislature from the time of the adoption of the Constitution of 1786 to the time when the district system was abolished and the town system adopted in 1892, more than a century; a construction that has been acquiesced in and accepted as correct by the highest court of the state. Calling attention to the statutes and the declarations of the court, in this respect, should be quite sufficient to convince one of the accuracy of the construction here given. By statute passed March 3, 1787, towns that could not be conveniently accommodated by one school, were given power to divide into so many districts as they should find convenient. The Revision of 1797 (one of the revisors being Nathaniel Chipman, recently referred to by the late Chief Justice Rowell as "That great lawyer * * * who was prominently active in public affairs during the formative period of the Constitution, and must have been imbued with its spirit and meaning"), Chapter LIV, Section 1, reads:

*"It is hereby enacted by the General Assembly of the State of Vermont, That each organized town in this state, shall keep and support a school or schools for the instruction of youth, in English reading, writing and arithmetic; and the inhabitants of such towns, in which the youth cannot conveniently be accommodated with one school, are hereby empowered at a legal meeting notified for that purpose, by vote or otherwise, to divide such towns into as many school districts as they shall judge most convenient, which districts may, in like manner, be altered from time to time, as occasion may require. * * **"

And the statute (R. L. 499) relating to that subject, which was repealed at the time of the adoption of the town system, reads:

"When the inhabitants of a town can not be conveniently accommodated in one district, such town shall, at a meeting warned for the purpose, divide the town into several districts and determine their limits."

In 1860, the Supreme Court, (in *Williams v. School District No. 6, in Newfane*, 33 Vt. 271) speaking through Judge Luke P. Poland, said:

"From the earliest period in this State, the proper education of all the children of its inhabitants has been regarded as a matter of vital interest to the State, a duty which devolved upon its government, and which should be fulfilled at the public expense.

"The constitution of the State especially enjoins upon the legislature the duty of passing laws to carry out this object, and declares that a competent number of schools ought to be maintained in each town, for the convenient instruction of youth.

"The legislature of the State, in obedience to this injunction of the constitution, have from the first, taken this subject in hand, and provided by law for the support of schools at the public expense, and it has always been understood to be one of the first and highest duties of the government.

"In order to attain and effectuate this wise and beneficial purpose, it was necessary that some system should be devised by which the State should be divided into such convenient territorial sub-divisions as would bring schools within reach of all its inhabitants.

"It was therefore early provided by law, that each town should keep and maintain at least one school within its limits, and when all the inhabitants of any town could not conveniently be accommodated at one school, it was made the duty of such town to divide the town into such number of school districts as would be convenient for the inhabitants.

* * *

"Without making further reference to the almost numberless acts of the legislature, exhibiting the most active watchfulness and fostering care, for the cause of popular education, enough has already been stated to show that the whole subject of the maintenance and support of common schools has ever been regarded in this State as one not only of public usefulness, but of public necessity, and one which the State in its sovereign character was bound to sustain."

Again in 1894, that court, (in *Town of Barre v. School District No. 13 in Barre*, 67 Vt. 108) speaking through Chief Judge Ross, said that by the law of 1892, adopting the town system, the several school districts theretofore existing in the towns, ceased to exist, "except for the settlement of their pecuniary affairs," and each town was made into a single district for school purposes; that "It is still the policy of the state to educate all its youth. They are still its beneficiaries."

If anything were necessary to lend emphasis to the policy thus declared to furnish an education to all the youth of the state, it may be had from the facts that in the charters of the towns, land, aggregating more than a hundred thousand acres, was reserved for the support of the town schools; that in 1794 the legislature

passed an act declaring that the lands in the state theretofore granted by the British government "to the Society for the Propagation of the Gospel in Foreign Parts" (a British corporation), by reason of the "late Revolution" became vested in the state; and that "whereas it appears to this legislature, that said lands might be more useful, if granted for the purpose of education, than in any other way,"—the said several rights of land were then granted severally to the respective towns in which such lands lie, to their respective uses forever, for school purposes; that in 1805 an act was passed, declaring the several glebe-rights in this state, granted by the British government to the Church of England, to be in the nature of public reserves, and that as such they became vested by the Revolution in the sovereignty of the state, by which act the said rights were severally granted to the respective towns in which the lands lie, to their respective use and uses forever, for school purposes; that in 1825 the amount of the avails accrued to the state from the "late Vermont State Bank" were by act of the legislature sequestered and granted to the respective towns in this state "for the benefit of common schools, and to no other use; to be managed as a school fund, agreeably to the provisions in this act, * * *". By the same act the amount of state's funds accruing from six per cent on the net profits of state banks, and accrued from licenses to peddlers should be sequestered and granted to the respective towns in the state for the same purpose, and to be managed in the same way—all these moneys to constitute a "state school fund" to be invested in the securities there stated, "in order that the same may be a productive and accumulating fund." It was therein further provided that this accumulating school fund should not be diminished, improved, or appropriated to the use of schools, until the amount of principal should increase to a sum sufficient to yield an annual profit and interest "adequate to defray the current expenses of keeping a good, free, common school in each district in the respective towns, for the period of two months in each and every year." It does not lessen the significance of these early statutes that in 1845, all of the laws respecting this "state school fund" were repealed and all the moneys, securities, etc., constituting "the state school fund," were transferred to and made the property of the state.

The fact that the Constitution requires an opportunity for the instruction of youth in the common schools in each town, does not prevent the legislature from adopting regulations that will, in some circumstances, require at public expense their instruction in advanced studies outside the town.

Legislation of this character was had as early as 1894 (No. 19), and laws to that effect have ever since existed. This is noticed more particularly further on, in connection with our discussion of high schools. For the better understanding of the essential elements entering into the regulations pertaining to the school system as we proceed, however, we deem it necessary to state here that the educational system of the state includes not only the proper instruction of the youth in public elementary schools, but in public high schools also, when pupils are fitted therefor, and desire it; that a general classification distinguishing these two grades of in-

struction has more or less broadly existed under the statute for more than seventy years; that at the present time the high schools are sub-classified; and that in this report such a general classification, and subclass divisions respecting both the elementary schools and the high schools, are made, as seem based upon reasonable grounds and requisite to more effective practical operation.

1. ELEMENTARY SCHOOLS

No. 20, Acts of 1892, (making the town system compulsory), Section 5, reads:

"Said board of school directors shall have the care of the school property of the town and the management of its schools, determine the number and location of its schools, * * *"

Section 6 reads:

"In every town there shall be kept for at least twenty-six weeks in each year, at the expense of said town, * * * a sufficient number of schools for the instruction of all the children who may legally attend all the public schools therein; * * *

"Said schools shall be within the limits of said town, and at such places, and held at such times as, in the judgment of the board of directors, will best subserve the interests of education and give all the scholars of the town as nearly equal advantages as may be practicable; and said school board may use a portion of the school money, not exceeding 25 per cent. thereof, for the purpose of conveying scholars to and from such schools."

In the respects mentioned, the present statutory provisions are substantially the same, except that thirty weeks of school is required and the board of school directors is authorized to designate the school which shall be attended by the various pupils, and may, in its discretion, provide conveyance for pupils, or may pay a reasonable sum for their board while in attendance upon school.

A careful examination of our statute law regulating public instruction under the present system seems to satisfy one that not much heed is given to the requirements of the Constitution, that a *competent* number of schools shall be had, affording *convenient* accommodation to the youth. These provisions are fundamental principles safeguarding the educational advantages of the children of the state. Formerly, their observance was by way of dividing the town into as many school districts as were necessary to effect the purpose, the maintenance of a school being required in each district. The town now being all in one school district, observance of those provisions must be had by the requisite number and the proper locations of separate schools in that district.

By the terms of this statute, in the judgment of the Commission, the board of school directors may locate the schools upon a basis that does not include the constitutional element of convenience to the youth. By the constitutional provision, to which reference has been made, the rule or standard is fixed by which the

number and the location of schools are to be determined, and thereby equal educational advantages to the youth throughout the town, as far as the conditions and circumstances will reasonably permit, are guaranteed. The discretion of the board of school directors in these respects must be exercised within the bounds of reason, ever guided by the rule or standard so fixed. A statute, therefore, by the terms of which the location of schools may be made by the board of school directors without the consideration of such rule or standard, leaves too much room for the play and action of power, purely personal and arbitrary. To say the least, it jeopardizes rights which should be guarded and held sacred as within the ever declared educational policy of the state.

It should seem that the due observance of this right, and indeed the general welfare of the people, demand that by statute the elementary schools be sufficient in number, and of such quality, and severally so located in the towns, as to furnish adequate and reasonably convenient opportunity for the children to receive such instruction in the fundamental branches as shall qualify them for entrance in the secondary schools, if study therein be contemplated, or together with subsequent vocational training (more particularly discussed under that head), shall give them to some appreciable degree a practical fit for their intended lives' work and for the proper performance, in the true sense, of the ordinary duties of American citizenship. And the furnishing of educational facilities being of state concern, the statute may well provide that in thus locating schools, town lines shall be deemed of secondary importance.

It may be said that the locating of the elementary schools in accordance with the above recommendations works a substantial departure from the idea of centralization, the one principle of the town system relied upon more than any other as tending to efficiency in instruction, and to economy in expense. True it is that centralization of elementary, as well as secondary schools, is desirable on both of the grounds mentioned, if not carried so far as, in practical operation, to work a substantial violation of the guaranteed coordinated rights of competency in number and of convenience in educational advantages, or to prevent such a classification of the schools as is essential to the general welfare of the state, or to make the matter of expense of the schools, instead of their suitableness to the public need, the controlling element of consideration. A statute regulating the number and location of elementary schools in the several towns should not "leave room for the play and action of purely personal and arbitrary power." It was said long ago by one of the greatest jurists this country has produced, and quoted with approval by the highest court in the land (in *Yick Wo v. Hopkins*, 118 U. S. 356), "That in all cases where the Constitution has conferred a political right or privilege, and where the Constitution has not particularly designated the manner in which that right is to be exercised, it is clearly within the just and constitutional limits of the legislative power, to adopt any reasonable and uniform regulations, in regard to the time and mode of exercising that right, which are designed to secure and facilitate the exer-

cise of such right, in a prompt, orderly and convenient manner;" but "Such a construction would afford no warrant for such an exercise of legislative power as, under the pretense and color of regulating, should subvert or injuriously restrain the right itself."

The reasons why the elementary schools should be located in accordance with the recommendations made above are cogent and, in the judgment of the Commission, so forcible as to exclude any other conclusion on reasonable grounds. By the statute, as before seen, public schools are divided into two classes, the elementary and the secondary. No one can well say that such a classification (leaving the point of division to be discussed later) is not based upon a sufficient difference existing in the ages, needs, and acquirements of the youth, nor that the difference in requirements as to the number and location of the schools so classified, is not well founded in the large number of youth to be provided for in the schools of the one class and the comparatively small number to be provided for in the schools of the other class. It is a common principle that a classification may properly be made, and, for the practical and efficient operation of the educational system, should be made, when it is based upon some difference having a reasonable and just relation to the object sought, in this instance, to the education of the youth, giving such reasonably convenient accommodations as the conditions and the circumstances in the particular town may require, without unequal and unjust discrimination, considering the location, conditions, and need of the inhabitants, in the advantages afforded. Speaking generally, the interests of the inhabitants in the rural sections pertain more particularly to agriculture. The children there are reared in an agricultural atmosphere, consequently nothing is more natural than that their ideas are so developed and their characters so molded as most likely to result in their lives' work being in the line of agricultural pursuits; while in the thickly settled centers of population the interests of the people are in character largely manufacturing, commercial, clerical, or professional. By the principle of adaptation, the development of a child is strikingly in accordance with the influence of his environment. The children in such centers of population are reared amid surroundings and conditions so different from those obtaining in the rural sections, that the tendencies there created are not toward the business of farming, but towards vocations so dissimilar to it as to require, outside of the ordinary fundamental branches necessarily common to all, special preparations therefor. Weighing these matters according to their importance, the one fair and just conclusion is that there should be in every town as many elementary schools, both rural and urban, as the number of children of the ages and acquirements necessitating their reasonably convenient accommodation shall require; with provisions, as above mentioned, permitting the location of schools, in certain circumstances, so as to afford convenient accommodation to youth from an adjoining town as well. It seems to the Commission that nothing short of this will fairly meet the contemplation of the provisions of the organic law of the state respecting this class of schools,

and that nothing short of this will do approximately equal justice to all of the inhabitants of the towns, those of the rural communities as well as those of the thickly settled villages and cities.

By Public Statutes (sec. 1027, as amended by Acts of 1910, No. 69, sec. 1), "The words 'legal pupils' shall include persons between the ages of five and eighteen years, but no person over five years of age shall be deprived of public school advantages on account of age." Under the present general classification mentioned above, the first eight years are within the elementary class, and all subsequent thereto are supposed to be within the secondary class.

It appears from the facts reported to the Commission, that the number of children in the state within the school age thus fixed, is about 83,000, of which approximately 57,000 are attending the elementary schools; that "Taking the national census as a basis, and assuming the ages from 15 to 18, inclusive, to be the normal ages" of children for secondary schooling, approximately 77 per cent never receive instruction in any school above the elementary; that 54 per cent of the children live in the country—outside the villages and cities, the large centers of population; that nearly 95 per cent of them are native born; and that comparatively few children enter school before six, and almost none remain in the elementary schools after sixteen years of age.

It is the belief of the Commission that Vermont cannot at present, on any sound and reasonable basis, be considered otherwise than an agricultural state. Though true it is that manufacturing industries will probably increase as the water powers in the state are more and more developed and utilized through the application of modern agencies, naturally resulting in enlarging the centers of settlement, yet it may be said, without fear of successful contradiction, that with the school system reorganized in a way to afford suitable and reasonably convenient instruction to the youth within the atmosphere of their own environments, as it should be in order to meet the fundamental requirements, governing public education in this state, agriculture may fairly be expected to hold its own in the race for predominance for many years to come.

It follows from the above, that the relative industrial importance of the agricultural interests as one class, and the other interests of the state as another class, is such that each of the two classes is entitled to thoughtful consideration in solving the problem particularly connected with the elementary schools.

The boys and girls of today are the fathers and mothers of tomorrow, and upon them depend the future civic life, the prosperity, and the industrial standing of the state. Any educational regulation, therefore, the natural tendency of which is to draw the boys and girls, bred and born to the farm, permanently away from it, or the natural tendency of which is to draw the boys and girls, bred and born to other industrial pursuits, permanently away from them, instead of leaving them to their natural inclinations influenced by physical conditions surrounding them (using language of Professor W. J. Sutherland of Wisconsin), "to develop, dwell,

and enter into the industrial pursuits of the neighborhood or locality in which they were born," is radically wrong, not in harmony with the best interests of the people, and some way should be devised to remedy it.

In the instruction now provided in the elementary schools, stress is placed not upon the need of the pupil as a member of the society in which he lives, but rather upon the artificial educational requirements of the secondary schools. What the elementary school teaches should be given out by the teacher and taken in by the child as learning in itself and not merely as training for further learning. Today there is less danger of becoming satisfied with the doing of what is in hand to do and losing sight of the larger things ahead than of regarding the work of the moment of small importance except as it prepares for work to be done later. Again referring to the report of the Carnegie Foundation, it appears, pages 64-65, that taking the last national census as a basis, and assuming the ages from 15 to 18, inclusive, to be the normal ages for secondary schooling, the state has approximately 25,000 children to educate in this way. The secondary schools of the state at present reach only about 23 per cent. of these children. Under the classification and improvement of secondary schools hereinafter recommended, children of the ages of 13 and 14 years are included in secondary-school age, and this increases the number for training in such schools to approximately 37,500; yet it may be taken as true that even too large a proportion of the children in the elementary schools will not enter the high schools. It is vital, therefore, that they take with them from the elementary schools knowledge that is real and useful in itself and acquirements that they can apply in their every-day life. Those, too, who go forward to a secondary school should not be required to spend their time on subjects chiefly important in meeting high school entrance standards as required in the free tuition examinations. As suggested in the Foundation's report, with competent instruction and supervision, a child should be passed from one division of the school system to another without examination. Clearly, a new course of study is needed and we adopt the following recommendations of the Carnegie Foundation (page 61), in this respect:

"For this purpose experienced teachers and superintendents from all parts of the state should be organized into committees and brought together at an early date, in order that the general principles that shall govern the making of the course may be fully explained and illustrated. Not less than two years should be allowed these committees in which to prepare a tentative course, which should then be published and tried in the schools for a year, in order to remedy its defects before final adoption. There should be at least two separate courses, one for the rural schools and one for the graded schools. Much of the subject-matter in these two courses would be the same, but the suggestions and applications should vary greatly. The various cities and unions might add appropriate modifications. This method of making a course of study will require a careful consideration of all of the conditions surrounding the schools, and will result in courses adapted to the

needs of Vermont. Incidentally, it will greatly benefit all of those who take part in the work of their preparation."

The need of a new course of study has long been apparent. The trouble has been chiefly in the manner of meeting it. Although the teaching of new subjects, rightly chosen, rather than new methods of teaching those already in the curriculum, will tend to awaken the child to a lively interest in his school, the advantage, for instance, of teaching agriculture and domestic science in a rural school by a teacher without instructional qualifications therefor, is questionable. The vital problem of elementary rural school instruction rests, not in the subjects taught, although more emphasis well might be given to subjects other than the "three R's;" it rests rather in the failure to adapt the things taught to the daily experience and needs of the child.

The Commission thinks it well said in the report of the Carnegie Foundation (page 38), in speaking of this class of schools:

"1. Schools should recognize the varying abilities, experiences, and environment of the children.

"2. Schools should recognize both the present and the future needs of the children.

"3. The knowledge gained in school should be so organized that the children can use it.

"4. In so far as the state assumes the responsibility for elementary education, the educational opportunities should be as nearly uniform throughout the state as conditions will permit."

United States Commissioner of Education, Philander P. Claxton, in his report for the year ending June 30, 1913, (Volume I, page xxx) under the subdivision "Redirection of the work of the rural school," says: "Courses of study in country schools need reconstruction and their work needs redirection. As human beings and as citizens, men and women living in the country have the same interests in the humanities (the term is used in its broad sense) and the things pertaining to civic life and citizenship that all other people have. But as farmers and farmers' wives, making their living from the soil and living in isolated country homes, their interests differ widely from those of men and women of the laboring and professional classes in the cities. However the case may have been in the past, it has now come about that farmers need a fuller, more extensive, more varied and thorough knowledge, a more comprehensive grasp of fundamental principles, and a greater power of adjustment than men engaged in other professions. The same is true of the farmer's wife as compared with other women * * *. Their courses of study need to be remade on the basis of what the farmer needs to know, and their teaching must take into consideration the environment and the raw material of experience of the country boy and girl."

One of the most important educational problems in the state is that of the consolidation of elementary schools, involving the question of transportation of pupils.

As pointed out in the Foundation's report, opposition to consolidation on economic grounds is unwarranted by the facts, and sentimental objections to closing the little school-house are more than offset by the increased instructional benefits enjoyed by the pupils. We are firm in the belief that here, as in other parts of the state's educational system, concentration and centralization within proper limitations is a sound policy. We believe, however, that the consolidation of schools as it exists in more or less instances, may be an encroachment on guaranteed rights and is developing wrong tendencies. As the environment and associations of children in the cities and large villages differ greatly from those of children in the rural sections, the same difference must necessarily obtain in their schools if their instruction is to be in harmony with their environment. Not that the subjects taught are materially different, but the manner in which the instruction is made plain to the minds of the children will vary as their experiences vary. It is not unnatural, but inevitable, that in some urban schools receiving pupils from the rural districts, the latter have come to feel in a class by themselves. They arrive at the school just in time in the morning and leave together at the close of the afternoon session. They are a body in themselves and in the circumstances cannot amalgamate with resident pupils either in the life of the school or in those outside associations that gather around it. This does not mean that the village children are exclusive nor that the country children lack the social instinct. It is simply an existent condition, and one that deprives the latter of a real school life to which they are as much entitled as the former.

There needs to be such readjustment of the elementary schools as shall result, so far as practicable, in the consolidation of rural schools. This is in the line of much activity during the past year, says the United States Commissioner of Education, (Report for 1912-13, Vol. 1, page 175,) and it is "an indication of a prevailing opinion that consolidation will do much to remedy the present unsatisfactory conditions in rural education." Many schools, centrally located in the country, can have all the advantages of grades, teachers, and direct supervision now enjoyed by schools in cities and large villages. In the establishment of these central rural schools, town lines should give way to the requirements of topography. Rural schools of two, three, and even four towns, rightly located, might well be consolidated at a convenient cross-roads. The expense of building, if necessary, and maintenance, except as borne by the state, should be equitably shared by the different towns joining in such schools, and the managing board of directors should be composed of one or more, taken from the several boards of school directors in said towns. This effects the same purpose as did fractional school districts, formed of parts of adjoining towns, when the school district system obtained. Such centralized rural schools should be established by the state board of education. Their establishment would not only develop a real school life of the highest order for the children, but would crystallize rural society around the school as a center, an object everywhere deemed desirable.

2. SECONDARY SCHOOLS

The statutes of this state have had provisions more or less looking toward secondary-school instruction since 1841, a law being passed that year providing for the associating together of two or more contiguous school districts to form a union district for the purpose of maintaining a union school, to be kept for the benefit of the older children of such districts. In 1844 an Act was passed, whereby a school district having children so numerous as to require more than one teacher, could have two or more schools; the teacher of the high or central school could be directed to teach any of the sciences or higher branches of a thorough education. In 1867 an Act was passed, authorizing a town to establish and maintain one or more central schools for the education of advanced pupils of the town. In 1878 the Act of 1867 was so amended as to read "one or more high or central schools." Thereafter, amendments were made by the legislature, from time to time, looking more and more to secondary school opportunities. In 1904 the legislature defined a high school as being one maintained for thirty-three or more weeks in each year, taught by a teacher or teachers of competent ability, etc., having an established course or courses of study for four years, following a nine-years' elementary course, and providing instruction in subjects "such as the English language, literature, higher mathematics, history, the natural, political, social, moral, and industrial sciences, ancient and modern languages, art, music, and physical culture." And by the Public Statutes (1906), section 1016, high schools were classified as follows: "first class, a school of a four-years course or courses; second class, a school of a three-years course or courses; third class, a school of a two-years course or courses; fourth class, a school of a one-year course or courses." The course or courses in any one of the four classes to begin immediately at the completion of an elementary course of nine years.

Under the provisions of section 1021, of the Public Statutes, as amended by section 19 of No. 62, Acts of 1912, it is made the duty of the board of education to determine the classification and standard of high schools, and by section 20, of that Act, section 1016 of the Public Statutes was so amended as to exclude therefrom all statutory classification, and to make the course of instruction in the high schools to begin immediately at the completion of the elementary course of not less than eight years. Acting under this Act of 1912, the board of education, deeming it wise to continue a similar classification of high schools as had previously existed, pending the report of this Commission, passed a resolution to that effect.

Section 1017, of the Public Statutes reads: "A town shall maintain a high school or furnish higher instruction for its advanced pupils as follows: the board of school directors shall, at an expense not to exceed eight dollars a term or twenty-four dollars a year for each pupil, unless the board of school directors is authorized by vote of the town to pay a higher tuition, provide and arrange for the instruction of advanced pupils in a high school of an incorporated dis-

trict or an academy within the town, or in the high schools or academies of other towns within or without the state. If a town does not maintain a high school of the first class, the board of school directors shall provide and arrange for the instruction of the advanced pupils of the town, for the remaining years, necessary to complete the course or courses of study in a high school of the first class, in a high school of an incorporated district or academy within the town, or in the high schools or academies of other towns within or without the state." It is further provided by statute that no person shall be deprived of such instruction by reason of age.

That secondary schools have been steadily growing in public favor in this state, is evident from the foregoing course of legislative action; and that their importance is recognized as second only to that of the elementary schools is manifest from the mandatory provision that every town shall maintain such a school, or furnish higher instruction for its advanced pupils elsewhere.

Yet in this respect Vermont is but keeping abreast of the present state of educational facilities largely afforded in other states in this Union. We call attention to the 1912 report of the United States Commissioner of Education, and quote from Volume II, page 181:

"The progress in secondary education continues with increasing rapidity. The report for 1911-12 shows 1,075 more high schools and 131,501 more high-school students than the report for the previous year. The increase in the number of high schools for the year is only a little less than 9 per cent; the increase in the number of high-school students is more than 12 per cent. The increase in high-school students for the year is nearly 50 per cent more than the average increase for four years previous and more than four times as great as the average increase of the preceding twenty years. The proportion of high-school students to the scholastic population was about three times as great as in 1890. It is estimated that about 23 per cent of the children of this generation in the United States receive some education in the high schools;" and in his report for 1912-13, Volume I, page 67, the United States Commissioner of Education shows that this growth continues without interruption.

In the study of this part of the state's educational system and conditions, it is essential to notice the twofold functional purpose of secondary schools: (1) To finish the schooling of one part of the state's youth; (2) To prepare the other part for higher schooling. Each part is entitled to a reasonable opportunity to acquire an education according to its needs. By constantly bearing in mind this twofold function to be fulfilled, we believe that a correct solution of the problems may be reached on basic principles.

Ideally, the state has an equal educational duty toward both of these two classes of its school youth. In theory this duty is absolute; in practice it must, for the present at least, remain relative. On the one hand, it is understood that but a small number of the pupils contemplate a college course, and the requirements

for entrance thereupon are known. As to such pupils, the aim of the high school is to qualify them to meet such requirements. On the other hand, it is known that in all probability a large number of the pupils will end their school-work in the high school, and as to them the aim of the school should not be circumscribed by any fixed standard short of turning out each pupil at the end of his course as a finished product, fitted as far as may be to grapple with the problems of life. The facts that less than ten per cent of its secondary pupils go to college and that of those graduating from the high schools in 1912 only 17.1 per cent went forward to institutions of higher learning, make it clear that in the performance of this duty stress should and must be given to the education of those boys and girls who leave the secondary school to take up their life work.

As the work of the higher elementary grades has been largely molded to fit the requirements of the secondary schools, these, in turn, have been fostered and dominated too much by the requirements of our colleges. This appears from the manifest disposition so far to disregard the real needs of the many pupils not intending a college education, as to allow their instruction to be influenced largely by the fixed types of training suited only to the small fraction having a higher education in view. It is not, however, that the colleges have actively dominated the secondary schools; rather the secondary schools have failed to discriminate properly between the two classes in arranging curricula suitable to their respective needs, and thereby the many pupils have been made to suffer for the particular benefit of less than one-tenth of the entire number. This shows great inefficiency on the part of those who are responsible for it, and so long as such inefficiency continues unsatisfactory and unjust results must follow. That secondary education may properly perform its dual function of securing to nine-tenths of its pupils a preparation for life in the factory, in the office, in the home, or on the farm, without sacrificing the proportionate right of the remaining one-tenth to a preparation for the further pursuit of schooling in college, we believe some change is necessary. "In conformity with this idea," well say the educational investigators (Report of Carnegie Foundation, page 97), "it is clear that the secondary school should be organized so as to deal with every normal child; that it should provide widely varied opportunities for determining the central tendency of a child's abilities and disposition; that its courses should include, not incidentally but treated with intensive thoroughness, those fields in which the youth of the community are likely to find their permanent careers; and finally that in the arrangement of curriculum and program, in the ordering of general school activities, in the training and spirit of the teaching staff, the central purpose should be to establish the child in the noblest mental and spiritual relations with life."

The small per cent of youth of secondary-school age, who now actually receive secondary-school instruction, is a matter of grave public concern, and some practical method should be devised, if possible, whereby it may be increased to a very considerable extent. It may be that the conditions in this respect will improve

as time goes on, even should the point of division between the elementary school and the secondary school remain where it now is. But the degree of improvement that can reasonably be expected without some material change in the point of division, naturally tending in the right direction, is too small to be satisfactorily encouraging.

The remedy recommended by the Carnegie Foundation is to put the point of division at the end of the sixth year, and place six years in the high school. This means a six-year elementary course, followed by a six-year high-school course, divided, as will be seen later, into two parts. Such a classification constitutes what is known in educational circles as the "six-and-six" plan of organization. This plan has so much in its favor and so little against it, that in the judgment of the Commission, it should be adopted. In its practical operation, the pupils may be expected to complete the elementary course, ready to enter the high school at the age of twelve years—the time of change in the lives of youth when entering the adolescent period. School age has yet six years to run, of which years four are within the period of compulsory attendance, as now fixed by statute. The completion of elementary work thus regulated is at a time in the lives of the children, when, all things considered, they are in the best condition physically and temperamentally, and educationally, to enter upon a course of high-school work, and at a time when they are likely to be most inclined to do so. In this connection the position of the parents toward their children must not be overlooked. Fathers and mothers are rare and not within the common governing instincts of humanity, who are not interested in the well-being of their sons and daughters, and who do not take pride in watching their development, mentally as well as physically, in the right direction; and probably there is no time when such parental characteristic is more potent as an actuating force than when the child is passing into the years of adolescence. At that time, then, the parents are most likely to influence the child to active progress looking to a course of advanced instruction in the high school. Let such a course be once commenced, and no argument is needed to convince a person of fair mind that the pupil is more likely to complete the full four-year course, than he would be to take advanced instruction in the high school after an elementary course extending over the length of time now required, eight years.

It will be recalled that the present classification of the high schools is by force of a resolution adopted by the board of education for temporary purposes, pending the action of this Commission. A classification is necessary, but to be effective as a part of the solution of the problem it must be based upon some difference having a just relation to the end to be attained. Without such a basis any classification that can be made is more likely to lead to complexity than to simplicity in the operation of the system.

There can be no doubt that under the "six-and-six" plan of organization, a much larger per cent of the youth completing the elementary-school course than

now will seek a higher instruction in the secondary schools; and there is no perceptible reason why the per cent remaining there throughout a four-year course may be materially less, except as affected by causes beyond control. Speaking generally, the four-year course or courses in all the high schools of the state would probably be the same, varying only so far as necessary to meet the conditions, and it is highly probable that of those completing such a course but a comparatively small per cent would continue through a six-year course, either to fit for college, or to enlarge and broaden their secondary-school education. Yet for the benefit of the small per cent who may desire a full six-year course, an adequate and reasonably convenient opportunity to that end should be afforded. In view of the comparatively small number of youth who are likely to desire such a course, the number of high schools in which the usual course or courses of four years need to be supplemented by two additional years, may be much less than the number of high schools of the other class and still afford reasonably convenient accommodations to those desiring to attend. Here then is a reasonable basis for the classification of the high schools into what may be called junior high schools, having a four-year course or courses, and senior high schools, having a six-year course or courses. Consequently in the judgment of the Commission, such a classification should be had to insure more efficient operation of the primary elements entering into the educational system of the state.

The national bureau of education reports that in 1905 the department of secondary education of the National Education Association appointed a committee on six-year courses; that the reports received and adopted in 1907, 1908, and 1909, indicated that the sentiment for the "six-and-six" division was growing; that since the adoption of the 1909 report there is every evidence of a rapidly growing tendency toward a shorter elementary course and a high school course of six years divided into two parts. The report further says: "Under the 'six-and-six' plan a few of the present high-school subjects, such as the languages, algebra and elementary science, are brought down into the seventh and eighth grades. It is pointed out that this arrangement will permit a pupil in the junior high school to prepare for any of the courses offered in the senior school, thus bridging the gap now existing between the eighth and the ninth grades. A pupil who in all probability will never go to college, would be given subjects leading to some vocational course in the senior high school, while the pupil who intends to enter college, would be given in the junior high school subjects preparing him for any one of the college preparatory courses in the senior school. A pupil would thus continue a subject long enough for it to be of some educational value. Algebra could be completed a year earlier, and the foundation for the study of physics and chemistry could be firmly laid. The claim is therefore made that the American boy would, under the 'six-and-six' plan, gain a year of two over the present arrangement."

"The conclusion of this committee," says the United States Commissioner of Education (Report 1912-1913, Volume I, page 5,) "that at least two years can

be saved in the time now given to elementary instruction, is significant, not because educators did not know it before, but because, coming from a conservative source, it represents the mature judgment of those actually engaged in teaching; a judgment, furthermore, reached only after the most painstaking consideration of all the circumstances, and confirmed by independent observers of conditions in other countries."

At a very recent meeting of the Inland Empire Teachers' Association (which enrolls about 2,000 teachers from the states of Washington, Oregon, Idaho, and Montana,) a resolution was unanimously adopted favoring the "six-and-six" plan of school organization. At that meeting the United States Commissioner of Education, speaking with emphatic approval of this plan, said in part as follows:—

"I know of no valid reason for the present plan of eight and four years of school. There should be six years of elementary school and six years of high school, the high school period being divided into two sections of three years each.

"There are many reasons for the change. Children 12 and 13 years old are at the beginning of the transition period between childhood and youth—they should not be kept doing elementary work. At present the pupils in most school systems *mark time* to a large extent through the 7th and 8th grades. This is especially true where the methods of the elementary schools are carried through these and the children are taught by women grade teachers. With a six-year elementary school it would be easily possible to promote the teachers with the children from grade to grade, thus gaining the large value that comes from teachers and children remaining together until the teacher knows the needs of the children, their strength, and their weakness, and can build intelligently on all the work of previous years.

"Furthermore, to begin the high school with the seventh grade will make much easier the departmental work, which should begin at least this low down. It will also make it much easier to begin work in such high school subjects as foreign languages, constructive geometry, and real literature, at this point where they should be begun. The study of languages, especially of modern languages, should be begun in a practical way before children have passed the time when they can learn in this way. This plan will also make it possible to introduce manual training, domestic science, and various forms of vocational work two years earlier than they are now begun.

"Our secondary school work is now at a great disadvantage as compared with the work done in the Gynasien and Realschulen in Germany, the Lycees of France, and the so-called public schools of England. By giving six years to the high school, the boys and girls who go to college may easily have, on admission to college, a much larger amount of mathematics, languages, and other subjects than they now have. I feel quite sure that by an arrangement of this kind and a little more care in the preparation and selection of teachers you may gain for most children two years in the twelve.

"The division of the high school into two sections of three years each will make easier a second differentiation of work at the end of the first three high-school years.

"At present only about one-fourth of the children enter the high school. The compulsory school age in most states corresponds quite closely with the elementary school period. Parents and children are thereby confirmed in the idea that the elementary education is all that is needed. Besides, the break between the elementary school and the high school at this time suggests leaving school and makes it easier. If the break came at 12 or 13 the great majority of children would be in the high school, doing high school work under high school conditions, and probably a much larger proportion of them would continue in school than under present conditions."

It is seen that Dr. Claxton favors the division of the high schools under the six-and-six plan of organization, into three and three years, and such a division seems to be in accordance with the growing tendency. Yet in the belief of the Commission there are good and sufficient reasons why the 3-3 division is less for the interest of the State of Vermont than the 4-2 division, here recommended: first, the 3-3 division would add but one year in the junior high school to the time now required in the elementary school, while with the 4-2 division, it seems highly probable that no less number of pupils would enter the junior high school, and that most of those entering may reasonably be expected to remain throughout a four-year course; and secondly, (the reason given in the report of the Carnegie Foundation, page 105), that "giving a junior school of four years and an additional central school course of two years, instead of devoting three years to each, * * * postpones home-leaving to the latest possible point,—a consideration of much importance where many are involved. This would not usually take place then before the age of seventeen,—an age of reasonable discretion, when supervision such as a high school staff could exercise would be effective."

In this connection it should be stated that the age of compulsory attendance in this state is "between the ages of eight and sixteen years" unless the child is mentally or physically unable so to attend, "or has already acquired the branches required to be taught in the elementary schools, or is otherwise being furnished with the same education, or is legally excused from attending school."

Should the schools be reorganized in accordance with the "six-and-six" plan, this law regarding compulsory attendance (section 1029 of the Public Statutes, as amended by section 1 of No. 75, Acts of 1912), should be amended by striking out the words, "or has already acquired the branches required to be taught in the elementary schools;" for with these words remaining in that section, it would in effect reduce compulsory school age by two years. This should not be. The compulsory attendance should continue into and through the usual age of pupils taking junior high-school courses.

There are now in this state seventy-five public high schools. Averaged, this gives one high school to about three and one-fifth towns and cities. These schools

are all closely similar in type, organized in about the same fashion, based upon the same fundamental traditions, and in general, having the same aims. "The curriculum in each," says the Carnegie Report, page 67, "consists of the traditional college preparatory course, or its close derivative, more or less enriched with semi-vocational opportunities in commercial subjects, domestic science, manual training, or agriculture. The method and the spirit of instruction, however vastly they may differ in their essential quality in different schools, are yet remarkably uniform in kind and reveal the same general source." The report (page 65) shows that in 1912, about 5,722 of the 25,000 children from 15 to 18 years in this state, actually received secondary instruction in schools organized for that purpose. If a reorganization of the elementary and the secondary schools be had, according to the recommendations contained in this report, it is reasonably certain that more high schools of the junior class, properly distributed in location, will be needed to meet the requirements of the larger number of pupils seeking instruction therein.

In some towns where approved academies are located and in operation, no high school has been established. Instead thereof the several towns have arranged yearly with the academy in town for secondary schooling at that institution at public expense. Such arrangements seem to be working well. To all intents and purposes, the academy is the public high school of the town. Arrangements of this kind, however, should be subject to the approval of the board of education.

Except where the academy in town is thus made to answer the purposes of a high school, there should be a junior high school in every town in the state where the youth to attend are sufficient in number to warrant it. But if the number of such youth is too small to warrant the establishment of a high school, then arrangements should be made by the town, subject to the approval and supervision of the board of education, for secondary educational advantages to its youth, outside of the town, at public expense.

In the junior high schools, pupils, whether contemplating a collegiate education or otherwise, should find a four-year course suited to their needs, and if in addition thereto a further two-year course be desired (as would be the case if preparing for college), it should be found in the senior high school, in each to be given by competent teachers. In these, the junior high schools, supplemented by the senior high schools, pupils contemplating a collegiate education should be furnished with convenient instruction suitable to the preparatory course required. Pupils, too, who desire a general six-year course with opportunities for semi-vocational training in commercial subjects, domestic science, manual training, or agriculture, should in like manner be afforded instruction suitable to the end sought. And pupils desiring a four-year course with lesser opportunities for the semi-vocational training such as is above described, should be afforded convenient instruction in the junior high schools.

Under the present law not all high schools are schools of the first class, and it is only in schools of the first class that a four-year course, fitting for college or other-

wise, can be had. Where the high schools are of the second, third, or fourth class, pupils taking a course therein must complete their course of study (if more be had) in some academy, or in some high school of the first class elsewhere. Provision is made therefor in section 1017 of the Public Statutes, quoted above. By the law of that section, if a town does not maintain a high school of the first class, the board of school directors shall provide and arrange for the instruction of the advanced pupils of the town, for the remaining years necessary to complete the course or courses of study in a high school of the first class, in a high school of an incorporated district or academy of the town if there be such, or in the high schools or academies outside the town, and even outside the state. This law will work not less justly to pupils under the proposed reorganization.

Believing a reorganization of the elementary and the secondary schools according to the "six-and-six" plan, to be for the best educational interests of the state, the Commission recommends: (a) That there should be a junior high school maintained in every town in the state (unless by arrangement an academy in town is in effect the high school of the town) where the number of secondary-school youth to be conveniently accommodated shall reasonably warrant it, having (in the language of the Carnegie Foundation's report, page 109), "a four-year curriculum, elastic in administration, but limited in scope by the numbers and needs of the local boys and girls, 12 to 16 years of age, covering the seventh and eighth grades of the present elementary school and the first two years of the present high school," with equipment appropriate to the curriculum presented; (b) That there should be as many central and readily accessible senior high schools, articulating directly with all neighboring junior high schools, as the number of pupils desiring the advanced instruction given only in this class of schools, shall reasonably demand, the number and locations to be determined by the board of education. These should have: (a) A four-year junior curriculum as in the junior high schools, "but including special vocational opportunities, particularly in agriculture, for pupils from 12 to 16 years of age;" (b) A curriculum appropriate to the youth of 17 to 19 years of age, drawn from the surrounding districts, who are fitting for college, or are completing a course of general education. This class of schools should have adequate equipment for all purposes within the curricula.

Yet with secondary schools so classified and under the best of regulations, efficient results cannot be realized unless the teachers are specially qualified for the work they are called to perform.

It may be said that under such a reorganization as is here recommended, the public schools of the state will be more expensive than at present. Undoubtedly this is so to some extent, more particularly consequent on the increased number of high schools, the quality of teachers, the larger salary demanded by them, and the better supervision. Yet to allow this as a controlling element against such reorganization is to place the expense of schools as the controlling factor, and the quality of schools, the educational advantages of the children, and the general welfare of

the state, as of secondary importance, a position which, in the judgment of the Commission, will be taken by so few people imbued with the true spirit of the Vermonter, and looking primarily to the general good of the people, as to be almost negligible. "That regard be had to the public welfare, is the highest law."

The expense of public schools should, however, more than ever before, be borne by the state at large, rather than by the several municipalities in which the schools are located. We endorse with emphasis the report of the Carnegie Foundation, wherein it says (page 144):

"It is essential, however, not to obscure the remaining fact that the state needs yet to provide both for a greater equalization of the burden of school support among the communities of the state and for a further enlargement of the funds to be used for the elementary and secondary schools, if these schools are to be conducted on the high level requisite for the progressive welfare of the state. The urgencies of the educational situation revealed in the portions of this report dealing with the rural and the secondary schools are such that additional expenditures on the part of the state must be resolutely faced. It is not a question of how much Vermont is expending per capita. It is a question of developing a school system equal to the needs of its people."

In this connection let us remember that by the organic law, it is the bounden duty of the state to provide for its youth suitable opportunities for acquiring an elementary and a secondary education. This being so, the state should perform this duty before it gives financial aid to institutions of higher learning, not a part of its public educational system.

It may also be said that such a reorganization will not meet with the approval of towns now having efficient high schools of the first class (under present classification), on the ground that to supersede such high schools by junior high schools, thereby obliging pupils in order to complete their fitting for college or to take advanced studies in the senior high schools, to leave home earlier in age than is now necessary, will be more expensive to the parents of such pupils. This also may be true and not, by any sound course of reasoning, militate against the proposed new organization. It is an undoubted fact that but a very small per cent of children receive instruction beyond the elementary schools. Is it for the public good that this condition of things permanently remain? If it is, then the principle "let well enough alone" should be applied. But if it is not, then to refuse to take a step which in all probability will, to a very large degree, remedy that evil, simply because a small per cent of the youth will be discommoded to some extent in taking advanced courses in the senior high schools, is to say that the very few thus incommoded are of more consequence than the ten or twenty times as many to be materially benefited thereby, a principle too irrational for serious consideration.

The educational system should be so regulated as most to benefit *all* the people of the state, and the interest of the few should give way to that of the many. Let us recur to fundamental principles already noticed, "That government is, or ought

to be, instituted for the common benefit, protection, and security of the people, nation, or community, and not for the particular emolument or advantage of any single man, family, or set of men, who are a part only of that community; * * *

If provision be made by statute for a reorganization substantially in accordance with these recommendations, much will depend upon the board of education by itself and through its chief executive officer, to effect such changes as may be necessary to put the schools, both elementary and secondary, into workable shape under the new regulations, and ample time should willingly be allowed therefor. It cannot be accomplished in a moment, and time commensurate with the work necessary to be done to bring about the change in an efficient manner, should be granted. In the meantime, the board of education should have discretionary powers broad enough to enable it to meet conditions peculiar to any particular town or locality in a manner most conducive to the educational advantage of the town or locality, and at the same time looking toward the operation of the new regulations as soon as shall be reasonably warrantable.

3. THE SCHOOL TERM

The school term in this state must by statute be at least 30 weeks. In the judgment of the Commission this is too short for the best results in a school age. It is true that the length of the school term varies in different states, some longer and some shorter than that of Vermont. It is said, however, by the United States Commissioner of Education in his report for the year ending June 30, 1912, (page xix,) that "surely an annual school term of 180 days, and an average attendance of 90 per cent of this time by all the children between the ages of 6 to 16, a total of 1620 days, can not be considered more than is necessary to prepare children for life and citizenship;" and he shows by tables the average length of school term in days of each of the several states in 1910-11, and the number of days that must be added to make an average term of 180 days, and the average number of days of schooling each child will get in the several states on the basis of attendance for 1910-11, and the number of days of increase necessary to give an average of 1620 days, or an average attendance of 90 per cent of 180 days each year by each child between the ages of 6 and 16. Regarding the states of New England and the state of New York the tables show that the school term in Maine is 163.8 days, in New Hampshire, 168.5 days, in Massachusetts, 185 days, in Connecticut, 184.9 days, in Rhode Island, 194 days, in New York, 186.9 days, in Vermont, 160 days. This makes Vermont's school term 20 days less than 180, the school term mentioned by the United States Commissioner of Education. It also gives Vermont 1338 days as the total days of schooling for each child between the ages named, it being 282 days less than the total of 1620 days given if the school term is 180 days as there recommended.

This is of great consequence to the state and especially to the children whose school education ends with the public schools. To lose two hundred eighty-two days of schooling is to lose the equivalent of nearly two years under present regulations, a loss which such children should not be obliged to suffer. The additional expense consequent on an increase of the length of the school term would be inconsiderable when compared with the benefits received. The Commission recommends that the length of the school term be increased to not less than thirty-six weeks.

IV

SPECIALLY INCORPORATED DISTRICTS

THERE are in the state thirty specially incorporated school districts, which in some instances include the whole town. Very likely the reason for being so incorporated was to get enlarged powers, or to secure the benefit of some fund or funds deemed not otherwise available. In the judgment of the Commission, the public schools of the state should be operated under general laws common to all parts of, and localities in, the state. By such laws no town, or district, should have special educational rights or privileges. In the proposed reorganization the general law should be made broad enough, if not so already, to give all such rights and privileges as are necessary to the effective operation of the educational policies of the state, and at the same time it should be sufficient to enable any school district to have the benefit of property now possessed by gift, bequest, or otherwise, from private sources.

The Commission therefore recommends that the charters of all specially incorporated school districts in the state be repealed, saving to the districts, however, by general statutory provisions, the same benefit of property now had by them respectively, by gift, bequest, or otherwise, from private sources.

COUNTY GRAMMAR SCHOOLS AND GRAMMAR SCHOOL LANDS

MENTION is made, in an earlier part of this report, of the county grammar schools incorporated as private institutions in nearly every county in the state, largely within a third of a century after the adoption of the Constitution of 1786, to some or all of which several corporations the General Assembly granted the lands situated in the same county, reserved in town charters to the use of county grammar schools. Though this Commission does not deem matters relating particularly to these county grammar schools and the lands granted to them, to be within its province, yet it ventures to call attention to them. The Commission understands that most if not all of these county grammar schools ceased to operate years ago, though in some and perhaps in most instances the corporate entity still exists; and that by force of legislative enactments or otherwise, the income from the grammar school lands now goes to the use and benefit of other educational institutions, public or private. The Vermont school report made by the state superintendent of education in 1888, states that such lands in the state aggregate 23,853 acres, appraised at \$173, 557, and that the rent received therefrom was then \$2,800. Regarding the present rent and the use made of it, the Commission has no adequate information; nor has the Commission sufficient information upon which to base any opinion concerning the reserved power of the General Assembly, if any it has, to act in relation to the lands or the rents and profits derived therefrom. It seems, however, that these lands and the use of them are of such consequence to the state, educationally, as to justify the appointment of a commission to investigate and report relative thereto, and relative to the county grammar schools to which the lands were granted, to the end that so far as it has power, the legislature may take action, looking to a more general distribution of the rents and profits to the public schools in the several counties in the state.

VI VOCATIONAL EDUCATION

WHEN the founders of this state provided in its organic law that schools should be maintained "for the convenient instruction of youth," although they had no conception of public vocational training as now developed, they laid down an educational principle good for all time by the requirements of which vocational education justifies itself. They further asserted that "every freeman, to preserve his independence (if without a sufficient estate) ought to have some profession, calling, trade, or farm, whereby he may honestly subsist," thereby recognizing in a substantial form, the importance of vocational training. In those days the boy who aimed at the trades became an apprentice and the girl received in her home training in things domestic. With the great change in social and economic conditions that has since come about, such opportunities for vocational training have almost entirely disappeared, leaving an educational void, in which our youth have aimlessly floated about or wasted years in further training of little practical value. As already seen, convenient instruction is that affording accommodation and advantage, and we believe it beyond successful contradiction that, under the Constitution, a duty to bridge this educational gap for the accommodation and advantage of its youth, rests upon the state.

Vocational training, although no longer in the class of uncertain experiments, still receives little encouragement from those educators to whom culture and intellectuality are the end and aim of schooling. They "make a fetish of learning at the expense of education." This truth is well expressed by Prof. G. B. Meade whose statement is set forth in the latest report of the United States Commissioner of Education as follows:

"Our schools are still in one respect medieval. They assume more or less consciously that they are called upon to indoctrinate their pupils, and that the doctrine which they have to instill—whether it be that of language, number, history, literature, or elementary science—is guaranteed as subject matter for instruction by its own truth, its traditional position in the school curriculum, and finally by its relation to the rest of the ideas, points of view, artistic products, historic monuments, which together make up what we call our culture."

Culture and intellectuality alone cannot do the world's work. The Commissioner of Education in Massachusetts has defined vocational education as "any education whose controlling purpose is to fit for a recognized occupation." It is far better that the great mass of our youth should be trained in the skillful performance of their lifework than receive a fragmentary intellectual development of little practical value. In a memorable speech on vocational education delivered in the Senate of the United States, June 5, 1912, the speaker, showing much thought and research, said:

" . . . The curriculum of practically all our schools looks forward to the college

as the ultimate end of all school life. Every college-bred man regards it a great misfortune that our young men are not receiving a more generous cultural training, and so do I.

"But, Mr. President, these men forget that only 1.71 per cent of our boys ever enter the college or university. They forget that only an additional 5.35 per cent ever enter the high school. They forget that only 25 per cent of the balance ever get as high as the eighth or upper grade of the elementary or grammar school. They forget that less than 50 per cent ever complete the seventh grade.

"In brief, Mr. President, they predicate their plans for the school life of the boy upon what ought to be, rather than what is. They would have every boy thoroughly educated; so would I; but since this cannot be, let us be practical. Let us not forget that much as we would have it otherwise, the school life of the American boy must of necessity be so changed as to teach him how to get a living."

The foregoing well expresses the views in this respect of the Commission.

It has been said, in effect, that our schools should concern themselves with the cultural and intellectual education of the youth, that manufacturers prefer to train their own employees, that agricultural labor should be left to some lower order of workers typified by "The Man with the Hoe," and that Vermont should continue to send her brilliant sons beyond her borders and shine by their reflected glory. Such a policy is suicidal. In these days of conservation of natural resources, one who advocates the dissipation of the state's greatest natural resource, the brain and brawn of her own children, is totally out of touch with the signs of the times. Vermont's unequalled contribution to the development of other communities, by the emigration for more than a century of many of her best intellects, is and always will be a source of just pride. Today, however, the state through modern developments in manufacturing and agriculture, is face to face with opportunities nowhere excelled. She is no longer merely the "Old Home" state; she is the "At Home" state. Vermont's chief duty today is so to train her youth that they may seize and develop these crying opportunities for their own certain private benefit as well as for her advancement as a sovereign state. The United States Commissioner of Education in his latest report well says that "the demand is becoming more and more insistent that in the American democracy, a commonwealth where, in theory at least, to be a producer forms the first claim to citizenship, productional training shall be given to all children in the light of their aptitudes and needs and in the light of the requirements of society."

For the performance of this duty, the Commission adopts the recommendations of the Carnegie Foundation (page 133), as follows:

"A wise program in the formation of vocational schools would seem to be, first, the reform of the public school system so that the youth of Vermont may be educated toward the occupations of the communities in which they live; secondly, the establishment at each of the proposed regional (senior) high schools, in its four-year junior division, of a high grade vocational course in agriculture for boys from 12 to 16

years of age, and in its senior division of advanced courses for older pupils; * * *

It will be noticed that agriculture as a vocation is given emphasis in this program of vocational schools, and we think rightly so. It has been said that Vermont is not an agricultural state. Vermont is and always ought to be primarily an agricultural state. According to the Thirteenth Census of the United States, Vermont, compared with other states—the leading states of the country in the various departments of agriculture—more than holds her own.

Vermont's dairying industry compares most favorably with that of Wisconsin, the leading dairying state. Assuming that Vermont had as many dairy cows in 1909 as she had in 1910, the value of all her dairy products for each dairy cow (excluding milk and cream used at home) was in the former year \$45.68 as against \$36.57 in Wisconsin; she produced from each dairy cow 431 gallons of milk as against 311 gallons in Wisconsin.

The value of Vermont's cereal crop in 1909, per acre of all cereal lands, was \$19.70, while the same value in Illinois, the leading state in the production of cereals, was \$17.99; her corn crop in 1909 was 40 bushels per acre of corn lands, of the value of \$25.30, while the corn crop in Illinois, the largest corn-producing state, was only 39 bushels per acre, of the value of \$19.74; she produced 21 bushels of wheat per acre of wheat lands, of the value of \$21.06, while North Dakota the leading state in wheat production, had only 14 bushels of wheat per acre, of the value of \$13.33; she produced 30 bushels of oats per acre of oat lands, of the value of \$16.35, while Iowa, the leading state in the production of oats, had only 28 bushels of oats per acre, of the value of \$10.53; she produced 27 bushels of barley per acre of barley lands, of the value of \$21.33, while Minnesota, the leading state in the production of barley, had only 22 bushels of barley per acre, of the value of \$11.00; she produced 15 bushels of rye per acre of rye lands, of the value of \$13.03, while Michigan, the leading state in the production of rye, had only 14 bushels per acre, of the value of \$9.41; she produced 23 bushels of buckwheat per acre of buckwheat lands, of the value of \$15.94, while New York, the leading state in the production of buckwheat, had only 20 bushels per acre, of the value of \$12.53.

Vermont's product of hay and forage, although less than that of Iowa, the leading state in the production of that crop, exceeds in value per acre the hay and forage of Iowa, Iowa's crop per acre being valued at \$11.76, Vermont's at \$15.85. Furthermore, in the production of hay and forage Vermont's product per acre of grass lands exceeds that of any other New England state as well as the State of New York, the second largest producing state. Vermont raises 1.46 tons per acre of grass lands, while New York raises 1.40 tons per acre.

New York, the largest producer of potatoes in the country, raises 123 bushels per acre of potato lands. Maine produces 210 bushels per acre. Of all the New England States and New York, Vermont, in the production of potatoes per acre of potato lands, is second only to the state of Maine. Vermont's product is 144 bushels per acre.

Of the New England States, Vermont is second only to the State of Maine in the value of her forest products.

Vermont produces 40,953 gallons of maple syrup and 7,726,817 pounds of maple sugar. In the production of maple syrup she ranks third among the states of the Union, and in the production of maple sugar she far outranks any other state, making 54.95 per cent of all the maple sugar made in the United States.

When it is considered that Vermont's crops were grown from only 73.7 per cent of her improved farm lands, that from 1900 to 1910 these lands decreased to the extent of 492,659 acres, and that, in spite of such decrease in acreage of improved land, the value of her crops from 1899 to 1909 increased 51.1 per cent, it is clear that the opportunities for agricultural development are truly wonderful.

Objection to the exploitation of Vermont as an agricultural state comes from those who maintain that the state is primarily industrial and that her greatest future prosperity lies in the development of manufacturing within her borders. The question is not academic but vitally practical in the adoption of a policy of vocational education. It is certain that the distant future can hardly be foreseen; it is equally certain that the vocational needs of the state are now mainly agricultural.

For a proper comparison to determine whether the state is agricultural or industrial, several bases have been suggested. It is claimed that the number of persons engaged in the vocations of agriculture and manufacturing, compared, will show that Vermont is primarily industrial; but this is not a true basis, for while there may be more persons in the state who obtain a livelihood from industrial work than from agricultural work, it is the respective values of these two vocations to all the people of the state that should be considered. It is also claimed that the value of farm properties compared with the value of industrial properties, is determinative of the question. The inquiry on this basis, however, can be nothing but speculative, for it involves on the one hand the value of Vermont's agricultural resources if fully developed and, on the other hand, the value of her natural resources of stone and mineral deposits and her undeveloped water powers. If the amount of investment in these respective vocations is a criterion, then our agricultural interests have an investment of \$145,399,728, while \$73,470,000 represents the amount of our industrial investment; and recent statistics show that the amount of capital invested in manufacturing in Vermont increased, from 1904 to 1909, 17.5 per cent, while the capital invested in agriculture increased, from 1900 to 1910, 34.1 per cent. It seems clear that the one true basis of comparison is that disclosed by the value of the state's products in these respective vocations.

In the industrial vocation this value appears in the amount of value added by the process of manufacture. The United States Census Bureau well says that this figure best represents the net wealth created by manufacturing operations; and it is the net wealth of a state in any development that counts. In agriculture the value of the products well represents the net wealth of agricultural activi-

ties in the state. In manufacturing, however, a large part of the value of the product represents the value of the materials used, many of which have been produced by agriculture. In agricultural operations, on the other hand, the product does not in any appreciable degree include the value of materials furnished by some other development, but represents something developed directly from the natural resources of the state.

The net wealth of the state, thus created by its manufacturing operations in 1909, was \$33,487,000. In compiling the value of agricultural products to be compared therewith, every product that can be said in any way to include the value of "materials" has been eliminated, as, for example, the value of poultry (\$759,362), the value of domestic animals slaughtered on farms (\$1,468,345), the value of domestic animals sold (\$5,990,550), and the value of all forest products (\$3,638,637). With such elimination, the value of Vermont's agricultural products in 1909, that is, the value resulting from agricultural processes, is as follows:

Value of dairy products (excluding all milk and cream used on the farm producing)	\$12,128,465
Value of wool products	192,002
Value of goathair or mohair products	136
Value of eggs	1,715,221
Value of honey	25,351
Value of wax	815
Value of crops (excluding forest products)	23,808,299
	<hr/>
Total	\$37,870,289

The net wealth of the state created by manufacturing operations in 1909 was, as seen, \$33,487,000, while the net wealth of the state created by its agricultural operations in that year was \$37,870,289, a very material excess.

Moreover in this comparison manufacturing is given an undue advantage, for its figures include \$16,005,000 net wealth created by manufacturing in marble and stone, lumber and timber, and dairy and grist-mill products. Furthermore, in comparing the relative importance of manufacturing and agriculture, the common conception of manufacturing as an industry does not include such activities as the production of marble and stone, lumber and timber, and dairy and grist-mill products.

Taken on this basis, it is apparent that agriculture and products taken out of the earth bring to the state not only a larger amount of net wealth than manufacturing, but an overwhelming excess of wealth as compared to manufacturing.

Here, then, is a present certainty. The state is agriculturally predominant and predominantly agricultural today. Where does her greatest future prosperity lie? Is it, as claimed, in the development of her water powers? She has a wonderful endowment of undeveloped water power resources, but their utilization will require

the investment of large amounts of capital in the construction of vast storage basins, and when, as now, water power generated into electric power is transmitted two hundred miles without appreciable loss, the development of these water powers does not necessarily mean the building and operation of manufacturing establishments. Vermont does not need large communities of industrial workers as markets for her agricultural products. By the recent extension of the parcel post system, her farm produce and products will surely find an insatiable market beyond her own borders. In the light of present facts and future probabilities, the Commission believes that vocational education should be emphatically directed to the training of the youth of the state in scientifically practical agriculture.

The statutory provision that "no person shall be deprived of public school advantages on account of age," is of special significance in the matter of vocational training in agricultural pursuits. It sanctions the undertaking of agricultural extension work as a part of our public educational system for the purpose of giving to the men and women actively engaged in farming the benefit of scientific research in agriculture. Under recent federal legislation, the State Agricultural College is enabled to carry on one form, at least, of such extension work, namely, by actual demonstrations on his own farm, or on some farm in his vicinity, to take to the farmer the results of the research work of the experiment station. The state may well undertake, as a part of vocational training in agriculture, to extend agricultural education to her farmers by appropriations to the State Agricultural College to be used, not only in the training of agricultural teachers for the senior high schools—discussed elsewhere in this report—but in cooperation with the federal extension work. The importance of educational effort of this character can not be over estimated. The Special Report of the College of Agriculture of the University of Maine for the Commissioner of Agriculture for the year 1913 well says: "The function of the College Extension Service is something more than the promotion of agriculture; it is the organization and development of the industry. It aims not only to spread agricultural truths, but to set agricultural truths at work. It believes in the 'business' of farming and therefore deals with agriculture from the economic standpoint. Its slogan is,—'Greater profits in farming'." That institution in 1913, in connection with extension work, inaugurated with markedly successful results its Farm Demonstration Work, of which the report says, "It appears to be one of the most practical and resultful plans thus far found, to spread and actually set at work fundamental truths in successful farming." In the practical operation of such extension work the farmer learns what he himself can do by his own labor on his own land. It means better and consequently more profitable results from his own labor on his own farm. Compared with vitally active extension work in agriculture, the establishment of so-called model or practice farms is of negligible importance. It is not what the farmer may learn by leaving his own acres and visiting an institutional farm, but what he observes of the results of his own efforts, under intelligent advice and supervision, upon his own acres,

that is primarily important. Model or practice farms, however, may well be developed in connection with the vocational departments of the senior high schools, for the purposes of experiment and instruction.

The report of the Carnegie Foundation recommends the establishment of special vocational schools in agriculture of the type of the State Agricultural School at Randolph. The Commission believes that the state should now direct its effort along this line, not to the establishment of other schools of this type, but to the improvement and enlargement of the school already established. In the Randolph school the state has laid the foundation for a school of practical agricultural and vocational training, and although its present equipment is inadequate, its work, to the extent of its appropriations, has been creditable. The predominance of agriculture among the industries of the state, however, requires that this school be adequately equipped and generously supported, so that under a competent staff of efficient instructors its work shall place it among schools of the first rank in practical agricultural training. Until this is accomplished, the state should take no measures toward the establishing of other schools of agriculture, thereby duplicating the work of the school at Randolph and conducting two or more only partly efficient schools. It would seem too clear to require argument that one wholly efficient school must first be had before others of the same class can reasonably be considered with favor.

The training given should be practical. Its graduates should be fitted to operate a farm not as an exposition of scientific agriculture, but as a business of practical farming using the aids thereto furnished by the discoveries of science in the field of agriculture. In other days the farmer taught his boys on the farm—not always consciously—something about dairying, live-stock, rotating crops, and the like—information more or less inexact that he had picked up from observation and experience. In these days, however, modern science, practically applied, gives exact information in many matters of this sort, and in others, so approximately near as to be practical knowledge essential to successful farming. The graduates of this school should be able to tell what a given soil needs to make it most fertile and what crop is most suited to it; they should be able to identify noxious weeds, plant diseases, insect pests, and the common ills of live-stock, and to combat them successfully; they should be trained judges of breeds more commonly kept; they should know how to determine the cost of keeping and the value of dairy products of each dairy cow independent of milk and cream tests at the creamery; they should be able to determine the profit or loss of any given part of the business of farming as actually conducted; and, in short, to do skilfully everything on the farm that untrained farmers have hitherto done more or less unskilfully. To this end its equipment and teaching staff should be much increased and strengthened and its annual appropriations should be sufficient to meet the necessities of the institution.

Its course should be emphatically agricultural and, at the same time, broadly

vocational in manual training. Today manufacturing operations are largely made up of special mechanical work; and it requires little or no special training to operate the near-human machinery of modern industry. For the present, at least, public vocational education in the industries should be directed, not toward training in manufacturing industries of more or less specialized operations, but toward making the youth skilful in manual work, and toward training them to fashion things by hand-craft, not to operate machinery. A boy trained in practical agriculture should, as incident thereto, be sufficiently trained in carpentry, in blacksmithing, in masonry including work in cement, and the like, to be able to meet the conditions on the farm when such work is required to be done economically and without unnecessary delay.

The Commission's recommendations respecting vocational education may be summarized as follows:

1. The instruction in the public schools to be of that character to educate the youth toward the occupations of the communities in which they live.

2. The establishment in the junior high schools of semi-vocational courses offering opportunities for instruction in commercial subjects, domestic science, manual training, and agriculture, appropriate to the needs and environment of the particular school.

3. The establishment in the senior high schools of high grade courses in agriculture, together with courses in manual training, commercial subjects and domestic science.

4. The strengthening of the equipment and teaching staff of the State Agricultural School and the increase of its appropriations; and the development therein of courses in manual training, incident to agricultural training, and in some measure fitting for the pursuit of the manual trades as vocations.

5. State appropriations to the State Agricultural College for the purpose of:
(a) Training teachers in agriculture for the high schools; (b) Cooperating with the federal extension work in agriculture.

VII

TRAINING OF TEACHERS AND SUPERVISION

IN the furtherance of the work of the survey of Vermont's educational system and conditions, the Commission requested over two thousand persons in the state to express their best judgment as to the essential matters that should first receive attention in order to enable the schools of the state to render the most effective service to the children and to the people of the state. Out of 940 replies received in response to these requests, 313 specified "better trained teachers," 156 specified "higher salaries for teachers," and 148 specified "more efficient supervision;" and these three expressions of judgment were the strongest numerically in the order named. It is clear, therefore, that the teacher is universally regarded as the keystone of the educational arch. A survey of the educational system ultimately reveals the crucial importance of efficient teachers who, above schools, books, equipment and courses of study, are the source of right instructions.

As already noticed, the vital problem of elementary-school instruction rests not in the subjects taught, but rather in the failure to adapt the things taught to the daily experiences and needs of the child. The solution of this problem demands a teaching staff sympathetically familiar with those experiences and needs and fitted by training to bring the child where he will automatically apply his instruction to them. To meet this demand the state now maintains two so-called normal schools and aids the teacher-training courses in the secondary schools. The most favorable view to be taken of this situation reveals a duplication of effort the correction of which is as important in the public schools as in institutions of higher learning. The Commission might review the discussion in the Carnegie Foundation's report and the very lucid and convincing statement contained in the last Vermont School Report made by the superintendent of education, relating to the deficiencies of the normal schools in essential facilities for observation and practice and to the local instead of state-wide, character of their patronage, as ample reasons why these schools should no longer be continued. In all that the Commission heartily concurs.

Above all other considerations, however, the *practical* question of how to secure a sufficient number of suitable teachers is now of first importance. The state needs about 400 new teachers annually for its elementary schools and the report of the Carnegie Foundation points out that the present normal schools have utterly failed to meet this need. The report says:

"Where is Vermont to look each year for 400 new and well-trained teachers to conduct her elementary schools in decent fashion? * * * The solution of the problem has hitherto been sought in two directions. For nearly fifty years three, and more recently two, low-grade normal schools have been merely reviewing elementary school subjects; pupils directly from the elementary schools have formed the great bulk of attendance, and during the ten years 1903-12 the three schools together averaged 87 graduates annually from this 'lower course.' * * *

From their 'higher course,' which alone deserves recognition here, the three schools have had during the same ten years an average combined annual output of eight, or, including reg graduates and specials, fifteen! What are these among 400?"

The report also shows that in 1913 Johnson and Castleton together graduated 72 teachers: 18 from the new two-year course for high-school graduates, 30 from the new "lower course" (equivalent to a four-year high school course), and 24 from courses still lower. Of the 72 graduates in 1913, the report says: "Of these practically all of the higher course graduates are teaching in graded schools; 49 of the 54 others are in rural schools." The lower courses are thus doing the same work as teacher-training courses in training teachers for the rural schools. That the tendency of the normal schools is not toward the training of teachers in advance of the training courses, but in competition therewith appears from their output in 1914, as follows:

	<i>Castleton</i>	<i>Johnson</i>	<i>Total</i>	
Graduates	36	48		84
Two-year course for high school graduates	8	7	15	
Lower or elementary course	28	41	69	
			—	84
High school graduates in lower course	26	30	56	
Not high school graduates in lower course	2	11	13	
			—	69

The higher course graduates were 15 as compared with 18 in 1913, and the lower course graduates, who were graduates of high schools or academies at the time of taking the normal course, were 56 as compared with 30 graduates in 1913 from the course called equivalent to a four-year high school course, although in fact there were no graduates in 1913, who were graduates of high schools or academies, except the graduates from the higher course. In other words, the output of the higher course has decreased, while the output of the lower course in direct competition with, and duplication of, the work of the teacher-training courses in the high schools, has increased from 30 to 56. Despite this increase and without regard to the financial waste consequent upon such duplication, it may well be asked, what are those 55 among 400? If the normal schools were turning out a large number of teachers more highly trained for elementary school teaching than the graduates of the teacher-training courses, they might justify themselves, although they would not be meeting the crying need of the state for hundreds of teachers annually for the rural schools. But their tendency today is to attempt vainly to meet this need, when, in the light of the great success attending the training of teachers in high schools and academies (hereinafter discussed), the one work justifying their existence, namely, the training of a considerable number of teachers for elementary

school teaching of a higher grade, is a work they are not doing and one which the state does not greatly require.

The United States Commissioner of Education, in his report for 1913 says ;

“A recent law in Vermont, by allowing recognition to training courses in high schools equal to that accorded to the two normal schools, apparently tends to lower the standard for teaching in that state.”

Such a tendency, however, is apparent only, and the appearance is due to the fact that the chief work of the normal schools has been of no higher standard than that more recently done in the training courses, and that the normal schools, upon the establishment of the training courses, have magnified the work of their lower course in direct competition with the work of the training courses, and have treated as of less importance the work of their higher course, which alone entitles them in any measure to the name of normal schools. The statement of the United States Commissioner of Education, in speaking of the different kinds of institutions called normal schools, that “There is a need, if not for some delimitation of function, certainly for some distinguishing standard with which to classify institutions so different, yet bearing alike the name of ‘normal school,’ ” is particularly applicable to our own institutions at Castleton and Johnson.

Without more particular reference the Commission firmly believes that the discussion of the report of the Carnegie Foundation respecting the normal schools is wholly sound. The Commission, therefore, recommends the discontinuance, as normal schools, of the two institutions now conducted at Johnson and Castleton.

As early as 1876 the idea of educating school teachers by instructing them in the public schools was enacted into law. By No. 49 of the Acts of 1876, it was provided that any graded school, organized by special act and situated in a county where there was no normal school, might establish, in connection with such graded school, a training school department for the instruction and training of teachers. The state superintendent of education was empowered to arrange two courses of study, one to include instruction and practice in the science of teaching all branches required to be taught in the common schools, the other to include instruction and practice in higher branches to be prescribed by him, in addition to the branches of the first course. It was provided that certificates of graduation should be granted to all who should pass the required examinations in either course, the certificates of graduation from the first course and the second course to have the effect of licenses to teach in the common schools for five years and ten years respectively, such examinations to be conducted by the state superintendent of education and two other officials named, who were constituted a board to revoke the licenses upon cause shown. The trustees of the graded school district were required to make annual reports to the state superintendent of education of the number of students in the training school department, the number of certificates granted in each course, and “all matters pertaining to the regulations and government of said training school department.”

Here was the seed of legislation looking toward a supply of teachers for the common schools in connection with regular school activities. By the revision of the statutes in 1880, however, this seed was crowded out by the growth of normal school legislation. The two courses were treated conjunctly with the normal school course, and admission to the higher course was made dependent upon graduation from the lower course and a full exercise of the five-year license to teach then issued. It is clear that in this way the higher course in the training school was practically wiped out. By No. 9, Acts of 1888, that part of the Revised Laws, respecting licenses to teach issued to graduates of the training school, was repealed and no provision was made for issuing certificates to such graduates; and it was expressly enacted that no person should teach a public school without a certificate. In other words, the state continued its provision for training teachers in its public schools but forbade them to teach after being trained, until 1894 when the training-school graduates were made eligible to certification as formerly. Thus the law stood until repealed in 1906.

To what extent the provisions of the Act of 1876 were taken advantage of through its unsteady career, it does not appear. Its legislative history indicates that it received no encouragement from the advocates of teacher-training in normal schools and that as a plan for supplying the state with teachers for the common schools, it was ineffective through failure of proper support. It aimed to train teachers for the schools of the state, as did the normal schools; but while the latter were supported by the state and were provided with competent instructors, the former received no state aid and had no special instructors competent to train teachers.

In 1910, the idea of training teachers in the public schools was re-enacted into law. It was provided that high schools and academies of the first class, in connection with their regular work, might establish and maintain a teacher-training course under the direction and with the approval of the superintendent of education who should prescribe the curriculum and appoint the special teacher therefor. The element of practice teaching, provided by the Act of 1876 but immediately lost in the legislative shuffle, was recognized, it being required that no such course should be approved unless there were at least three elementary graded schools available for observation and practice purposes. That the legislation is of state concern, appears from the requirement that the students to be taught shall be willing to teach in the public schools of the state and from the provision for state aid to the extent of \$800 whenever the high school or academy expends, in addition thereto, at least \$200 in salary for such special teacher. In 1912 the law was materially broadened and strengthened. The teacher-training course in the secondary school, at first an experiment of doubtful value to many friends of education, has already proven its worth as a source of supply to meet the requirements of the elementary schools. Its graduates have the requisite training in the science of teaching and for the most part, have kept in touch with the rural environment. In the two years following its establishment it put 249 teachers in the field—229 of them into rural

schools, and respecting its work in 1912, the report of the Carnegie Foundation says:—

“On the whole, the state certainly did vastly better for its purpose with its investment of \$8,600 in the 126 training-class graduates in 1912, than in the \$20,000 that it put into the 14 ‘higher course’ and 28 ‘lower course’ graduates from the normal schools during the same year.”

The teacher-training course has proved the most efficient and the most economical way of training teachers for the elementary schools. Of this the Commission is firmly convinced by information received, not only through the report of the Carnegie Foundation, but independently of it. After thirty-five years—years in which the normal schools, despite strong moral and financial support, have utterly failed to furnish an adequate supply of trained teachers—the idea of training teachers for the schools in the schools, formulated in suitable legislation, has developed into a successful fact. The Commission strongly advocates the immediate increase in the number of teacher-training classes with a two-year course, the establishment and development of which the Commission believes to be one of the most important functions of the secondary schools selected therefor.

Given an adequate supply of trained teachers, the teacher’s tenure of position is a consideration of great importance, for upon it depends the growth of that subconscious intercourse between teacher and pupil, indispensable to good instruction. To be successful, the teacher must know the minds and hearts of her pupils, and they must feel that they are known by her. It may not be an overstatement to say that the work of a teacher for a single term in a new school is almost valueless instructively, even though—as doubtless too often happens—she does not thresh over the dry straw left by her predecessor. Closely related to the matter of tenure of position is that of teachers’ salaries. It is said that Vermont, of all the states of the Union, stands forty-third in the average annual salary of public school teachers and that the majority of rural teachers receive an annual salary of \$250 to \$350. The standard of the salary of elementary school teachers should be materially raised, especially in the rural sections. In these matters a very grave responsibility rests upon local boards of school directors, a responsibility not commonly met because, probably, not appreciated. The report of the Carnegie Foundation says that the amount of teachers’ salaries and the manner of payment should be prescribed and guaranteed by the state, and that they should be subject to state inspection and criticism. The Commission approves the suggestion that the state should prescribe the manner of payment and believes that the amount should be subject to state inspection and criticism. The fixing of the amount, however, should remain within the province of the local authorities, subject to the supervision of the board of education. That “the elementary school teachers should work under conditions controlled by the state” is a recommendation which the Commission heartily endorses with respect to the teacher’s tenure of position. School teachers, in either the elementary or secondary school, should be assured of

their positions during good behavior and should not be permitted to change their locations in the state except to receive an increase of salary—and then only at the end of the school year; provided that by the sanction of regulations therefor, to be established by the board of education, teachers might be removed for cause shown not affecting their behavior and might change their locations in the state for cause shown, regardless of salary. Assured of reasonable compensation and stability of position, the work of the teacher will become more professional, and consequently more efficient.

The report of the Carnegie Foundation treats the teacher-training courses as a source of supply of teachers for the rural elementary schools and recommends the establishment of a central training-school for teachers in the higher grades of urban schools in the junior high schools. The report also recognizes the fact that such a central training-school is not now indispensable. It says: "In Vermont it would, of course, be quite possible to continue as heretofore and allow the better positions in the state to be filled by a process of natural selection from merit in the lower grades or from material attracted from abroad." In its discussion of the normal schools the report says: "Vermont has tried in vain for fifty years to bring pupils to her training-schools; when she takes the training-schools to the pupils there is response at once." Experience, therefore, cautions against the establishment of a special training-school. The Commission is strong in the belief that training of the character proposed for such a central training-school is the only kind of normal training the state should undertake, now or hereafter, in a special institution therefor, and that such training when given should be in a single, strong, well-equipped central institution. Without, however, in any way discouraging the establishment of such an institution whenever the needs of the state in this class of teachers require it, the Commission is of the opinion that the teacher-training courses in the secondary schools will amply meet the teaching requirements of the elementary schools, both rural and urban, and of the earlier years of the junior high schools, all of which are now within the class of elementary schools. If it be thought that the graduates of the teacher-training courses will not be equipped to teach in the junior high schools, it would appear to be entirely feasible to train teachers for the junior high schools—for the earlier years even—in the way recommended elsewhere for the training of teachers for the secondary schools, for under the proposed new classification of schools, the junior high schools are secondary schools no less than the senior high schools.

The training of secondary-school teachers is discussed under the title, "Middlebury College."

SUPERVISION

As respects the work of superintendence and supervision, it is interesting to note that Vermont was one of the pioneer states in the adoption of a state system of supervision. In 1845, the legislature, by a single enactment (No. 37, Acts of 1845),

provided for a comprehensive and cooperating system of school supervision by town superintendents, appointed by the freemen of the towns at their annual March meeting, by county superintendents, appointed annually by the judges of the county courts, and by a state superintendent, appointed annually by the General Assembly.

As this work requires a thorough appreciation by the superintendent of the personality of the teachers, the importance of permanency of position is apparent. The Commission fully endorses the system of school unions for the improvement of instruction by union superintendence. Heretofore, the establishment of such unions has been optional with the school directors of neighboring towns, the towns not within a union having a town superintendent of schools as formerly. The efficiency of instruction, the general improvement in school buildings, surroundings and equipment, the arousing of a united interest among the teachers, in the schools of a union, are considerations that lead the Commission to recommend a compulsory unionization of schools. It seems likely that of about sixty towns now outside of school unions, most of them can conveniently become a part of unions already formed. So far as possible a center of population of a sufficient number of schools should be a union in itself. Uniformity of work in the schools of a union is desirable, and to this end the superintendent's tenure of office should be stable. We endorse what is said in this respect in the report of the Carnegie Foundation:

"Superintendents who have shown acceptable ability should be assured permanent tenure of office. In every case their dependence for office should be removed as far as possible from local influences." As representatives of the state board of education, their election and also their dismissal should be subject to governing regulations by that board. This is so now by statute, Acts of 1912, No. 62, Sec. 12.

In addition to the system of superintendence by unions, and broadly supplementing it, we advocate a close state supervision by trained, capable supervisors employed by the commissioner of education and responsible only to him and the superintendent in whose union they may be engaged. Their work should not be confined to any particular section of the state; their field of oversight should be changed frequently. They should not be inspectors merely, but should "spend their time in the schools, assisting the teachers and demonstrating proper methods," and withal they should see that hygiene regulations are properly observed, a matter requiring especial attention in the rural schools.

VIII

AGENCIES FOR ADMINISTRATION

To make the operation of the system of education consistent and uniform throughout the commonwealth, giving all the children of the state approximately equal advantages; and to maintain the system constantly and progressively as a function of government essential to the general welfare of the state, involves a provision for administrative agency and control. This administrative power should be commensurate with the educational regulations established. It should be free from all influences but those affecting the welfare of the state as a whole, and therefore competent to deal with school problems exclusively from the standpoint of the public educational provisions of the state. To be efficient in meeting all the needs of all the people, regulations should have due regard to the courses of study in the elementary, secondary, and vocational schools to adapt them to the life and conditions in the state; to the specific training of teachers to supply the demands of the elementary and the secondary schools; and to such thorough supervision of the entire public school work as will insure wise direction, proper counsel, true encouragement, and correction of undesirable methods and results. These and other essentials to the efficient administrative direction and control of the educational instrumentalities of the state, can be most surely achieved through a strong state board, supporting and cooperating with a scientific educator of ability and experience, as its chief executive officer.

Throughout its whole history, Vermont has definitely committed itself to the suitable education of its children and youth for independent and responsible citizenship. From the start it recognized public education as a "fundamental social policy" and sovereign duty. In providing for a system of public education the school district was early made the unit of organization; and the administrative control was delegated by the state through its legislature to such restricted areas. This continued for many years to meet in reasonable degree local conditions and the needs of the children of the state, and was therefore satisfactory to the people; but with the changes in population, in the growth of centers of population, and in other conditions affecting social life, there arose demands for a larger unit of administration, looking to a greater equalization in educational advantages as well as in the burdens. To meet these demands the legislature of 1870 enacted laws permitting the present town systems; but it was not compulsory until 1892, since which time, by general law, the town has been the unit of organization for school affairs throughout the entire state. Yet, as seen, the real educational unit is the state, and the subject of the maintenance and support of common schools is one which the state in its sovereign character is bound to sustain.

Though the state has always recognized the duty to give its children equal educational opportunities, this has not always been the result of endeavors, because of physical conditions, the uneven distribution of the school population, and the un-

equal valuations of assessable property in the several towns and cities. To meet and correct the inequalities arising from the various causes, the state has sought from time to time, in effect, to distribute the burden more evenly to cover the whole state, to the end that the children in towns financially unable to bear the entire burden of schools therein, which in number and quality would answer the requirements of law, might have the educational advantages contemplated and to which they were entitled. This object has but partly been accomplished. In furtherance of the essential purpose to regulate the school system so as to afford all the children in the state as nearly equal educational advantages as circumstances will reasonably permit, regardless of the size or financial ability of the town or city in which they live, the state should take upon itself to a greater extent than ever before, the burden of the schools, and a more extended and more critical supervision and control affecting every part of the state.

The state is vitally concerned with the proper enlightenment of its children. Its integrity and progress can be insured only by a system of free public education that will reach all and train them to a knowledge of the life, conditions, and opportunities within the state. Those towns and cities where wealth is concentrated must, to a greater extent than heretofore, bear a just proportion of the burden of public education throughout the state, that educational facilities may be uniformly distributed. The original conception of duty, the historic tendencies, and the common needs of today all point clearly to greater state responsibility and larger state control in public school affairs. This brings us back to the fundamental right of every child to be adequately educated for life and its opportunities; and the inherent responsibility of the state to make sure provision for the due and proper education of all its children.

Specific supervision of the common schools of Vermont was not undertaken until 1827 when the legislature created the first state board of commissioners for common schools. This board was discontinued in 1833. Twelve years without supervision having elapsed, the office of state superintendent of common schools was established in 1845, it being filled by appointment of the legislature. In 1851 the legislature declined to appoint a state superintendent and for a period of five years the state again exercised no general supervision over its common schools; but in 1856 there was enacted a law creating the state board of education. This board continued to govern until 1874 when it was abolished and the office of state superintendent of education was substituted for it. From 1874 to 1913, the superintendent of education, elected by the legislature, was the responsible power to define educational policies, formulate rules for their application and to supervise methods, check up results, and remedy errors in practice. The legislature of 1912-13 discontinued this method and created the existing board of education.

Vermont's experience in its administration and supervision of its common schools has been irregular and subject to frequent changes, tending to impair efficiency and obscure the worth and importance of this necessary feature of an effec-

tive public school system. This failure to assume definite and constant responsibility for inspecting and guiding the common schools as an essential instrument of public welfare, has in late years been recognized by many thoughtful citizens, and there has been an intelligent and persistent effort made to awaken public sentiment to the needs of a positive and constructive state policy, that shall provide adequate organization for the administration, inspection, and helpful supervision of all common and special schools within the scope of the public educational system.

In recent years the movement has been strong in many states, east and west, toward the centering of increased authority in state boards and trained educational officers. This is the response of the public to a quickened realization of state responsibility to foster educational interest and activity through right financial aid, in elementary, high, vocational, and special schools; and to exercise a wise and salutary supervision that shall contribute to more uniform conditions and better school advantages.

As a part of this nation-wide search for greater efficiency and more equal opportunity, the plan, once generally employed, of placing the public schools of the state under the general control of a superintendent of public instruction, elected by the people or chosen by the legislature, has given place to the plan that puts the public school organization under the general management of a small school board appointed by the governor, with or without legislative confirmation.

Vermont has had ample experience in both methods. By enactment of its present legislature it is aligned with the most modern thought, and the administration of its public school system is committed to a board of education composed of five members who are appointed by the Governor, with the advice and consent of the senate, for the term, two for two years, two for four years, and one for six years, the board to appoint a superintendent of education whose term of office is three years and until his successor is appointed and qualified; but the partial and uncertain authority of this board over the different factors entering into the efficient operation of the state's educational system, makes a well conceived, definitely formulated, and effectively executed state educational policy difficult if not impossible.

This administrative board is the central and authoritative agent of all of the people of the state. It must be representative of the whole and not of a part. It must stand for the educational interests of all of the state's children; and for the welfare of every factor contributing to the educational integrity and progress of the state. Its powers should be sufficiently large and its responsibilities sufficiently great to meet the needs of the whole people within the law pertaining to public educational regulation and administration. Its members should be able, representative, experienced in the affairs of life, familiar with conditions in Vermont, and free from other connections making for local, political, or institutional prejudice, or in any way opposed to public welfare in its widest educational sense; but not necessarily expert in educational principles and practice.

This board should be made up of laymen of eminent fitness and standing, not

otherwise employed in educational service, and who will not allow political considerations to enter into or influence the official actions. Its membership should not include persons connected with, or representatives of, educational institutions or other special educational interests, and there should be no *ex officio* member. The members should serve without compensation, except that they should be reimbursed for their necessary expenses when engaged in the performance of the duties of the office.

A central board of administration so constituted will embody the truest and wisest expression of personal service in behalf of public good and educational advancement; it will command state-wide trust and confidence; and membership in it will be regarded by the public as evidence of eminent capacity for the services to be performed. Yet to make certain the high character of the board and to insure permanent effectiveness of its policies, plans, and activities, the members should be subject to removal by the Governor for cause, such as incompetency, failure to discharge duties, malfeasance, immorality, or other just cause inimical to the welfare of the public schools.

Having created a board of education, composed of the type of persons and given the powers as herein indicated, the state should delegate to it the exclusive administrative government and control of the entire public school system; and impose upon it the duty of administering this trust in conformity to law, and to the true spirit, intent, and meaning of the educational policy of the state. The state should commit the administrative authority over the whole educational system to this central board, with the right to select and employ trained and skilful executive officers competent to be entrusted to formulate educational plans in broad outline and in detail; to supervise curricula for elementary, secondary, vocational, and special schools now existing or which may hereafter be established under the laws of the state; to prepare courses of instruction to be given in teacher-training classes in secondary schools, for the preparation of teachers for elementary schools; to prepare courses to be given in departments of institutions of higher learning, for the preparation of teachers for secondary schools or for the teaching of agriculture; and to administer, inspect, and supervise the entire educational organization and work, over which the state gives to the board general administrative authority.

It should be the province of the board to supply sound judgments, to furnish wise counsel, and to stand as a firm protection to the whole educational organization against influences either within or without, harmful to its highest efficiency. It should be the right and duty of the board to act in all matters pertaining to the operation of the public school system upon conference with its chief executive officer; and to approve or disapprove recommendations made by him relating to administrative policy. The board should exercise reasonable diligence to know that its executive officers are discharging their duties in a true educational spirit and without bias or influence from other considerations.

The effectiveness and final results of the educational system will depend largely

upon the character and personnel of the board of education, and the skill, capacity, and adaptability of the executive officers chosen by that board to act under it. Hence the first and supreme function of the board will be to choose these officers of administration. The staff should consist of a commissioner of education and at least two competent deputies, who are experts in various phases of educational work, to be in constant touch with the superintendents and the teachers, for the purpose of inspection, advice, instruction, encouragement, and inspiration.

The commissioner should be a man "of such special training, of such varied educational experience," with such a record of successful achievement, and with such breadth of capacity as will qualify him, under the supervision and approval of the board, to formulate and execute the responsible duties connected with the operation of the school system, looking to the best results. He should be selected with an eye single to his fitness and capacity to render large and effective service to all the people, as the first executive officer of the board. He should serve for an indefinite term and be subject to dismissal only upon a four-fifths vote of the whole membership of the board; and there should be attached to the office a salary to be determined by the board in such an amount as will secure and hold a skilful, efficient, and successful man. The expert deputies to assist the commissioner and needed to make the school organization efficient, should be appointed by the board upon the nomination of the commissioner and removed upon his motion formally presented and cause shown, and their salaries should be fixed by the board.

The board, acting through the commissioner of education and his deputies, should have general administrative control of the whole educational system of the state, including schools, departments, or classes provided by the board for the training of teachers in any phases of the educational work. Such oversight should include the preparation of a budget for educational expenses; the enforcement of laws relating to the effective operation of the schools; the classification, unification, and separation of schools; "the establishment of uniform records and reports, the determination of the qualifications of teachers and their certification * * *, and the recognition of certificates and diplomas from other states;" the supervision of the expenditure of all state money for educational purposes; and the inspection of all institutions receiving state money and reporting upon their use of such funds.

The board should establish a uniform system of supervision by reorganizing or discontinuing present supervision unions, or by creating new unions, to the end that all towns shall be included in unions, and that the number of schools and amount of work to be performed in the various unions shall be approximately equal; and approve of union superintendents, determine their salaries, discontinue, transfer or promote them as circumstances may demand.

"The board in cooperation with the state board of health," or on its approval, "should establish standards for the construction, arrangement, and sanitary equipment of school buildings and school sites; and should direct the medical inspection and study of public health as far as the schools are concerned."

The board should adopt and provide for a method by which the people of the whole state may be informed as to the conditions and opportunities of all the schools within the scope of the system of public instruction; and such other educational publicity as may, in the judgment of the board, contribute to the enlightenment and well-being of the citizens of the state. It should likewise make provision for all proper educational gatherings, institutes, summer schools, etc., that the supervising and the teaching forces may have such opportunity for association, instruction, and inspiration as may be necessary for a healthy and progressive development of the state's educational interests.

This Commission recommends, therefore, that the existing board of education be so reorganized as to provide a board of five members appointed by the Governor, one member for the term of five years, one for the term of four years, one for the term of three years, one for the term of two years, and one for the term of one year, and at the expiration of a term, the term of office should be five years; that the membership shall consist of laymen of the type herein suggested; that the board shall be given plenary administrative powers, within the law, over the whole educational system and organization of the state, and be charged definitely with the responsibility of providing, through a commissioner of education and at least two deputies, for the effective administration of the educational policy of the state; that provision be made for such compensation to the commissioner and his deputies "as shall guarantee the service of a progressive educational leader" with competent assistants; that proper appropriations be made to enable the board of education to carry out the provisions of the law respecting the establishment and maintenance of elementary and secondary schools throughout the state, and respecting all other matters connected with, or essential to, the efficient operation of such schools, including the preparation of teachers, and supervision of schools; and for the payment of salaries of all officers and of clerical assistance employed by said board in connection with the administrative work of, or under, the board, including the expenses of the board, and the members thereof; and since all items of cost can not be correctly estimated in advance, that a reasonable sum of money be placed at the disposal of the board at the outset to be accounted for subsequently in detail to the state.

UNIVERSITY OF VERMONT AND STATE AGRICULTURAL COLLEGE

I. ITS CHARACTER—PUBLIC OR PRIVATE

It has been much urged on the part of the University of Vermont and State Agricultural College, that it is a state university, that is, a public, not a private, corporation, and therefore entitled as a matter of right to state support. This question so bears on the rights, duties, and obligations of that institution, which it is, by statute, the duty of this Commission to determine, as to require a careful examination of the character (that is, whether public or private) of the University of Vermont and the Vermont Agricultural College, two pre-existing corporations which united in forming the University of Vermont and State Agricultural College, held by the Supreme Court of the state (in *University of Vermont and State Agricultural College against Baxter's Estate*, found in 42d of Vermont Reports, page 99,) to be a new corporation. This constitutes our justification for the space given to these matters in this report.

The president of the last named institution, delivering an address before the Commission, said:—

“The University of Vermont has been from the beginning of its existence a State University. The facts of history are full and sufficient demonstration of this proposition. The university is the only institution of this type in Vermont and, therefore, claims its right as the culmination and consummation of the public school system to serve this state in the same way that institutions of similar character serve their several states.”

It should be here stated that a corporation is a creature of the state granting its charter, endowed with such faculties as the state bestows and subject to such conditions as the state imposes, and if the power to modify the charter is reserved, the reservation is a part of the contract; and the highest court in this state has said, “that such a reservation affects the entire relation between the state and the corporation, and places under legislative control all rights, privileges, and immunities derived by its charter directly from the state, including its very existence; but that rights and interests acquired by the corporation, not constituting a part of the contract of incorporation, and so not derived directly from the state, stand on a different footing, and are not thereby subjected to legislative contract.” *Lawrence v. Rutland Railroad Co.*, 80 Vt. 370.

In connection with our discussion of the elementary and secondary schools, we quote sections 40 and 41 of chapter II of the Constitution of 1777, showing that the former section, after requiring the establishment of a school or schools in each town by the legislature, declared that “One Grammar School in each County, and one University in this State, ought to be established by Direction of the General Assembly;” and the latter section, among other things, declares, “And all religious

Societies, or bodies of men, that have, or may be hereafter united and incorporated, for the Advancement of Religion and Learning, or for other pious and charitable purposes, shall be encouraged and protected in the Enjoyment of the Privileges Immunities and Estates, which they in justice ought to enjoy, under such Regulations as the General Assembly of this State shall direct.” We also quote from the Constitution of 1786, showing that the provisions of the above mentioned sections 40 and 41, so far as retained, were united to form section 38, of chapter II, in the new Constitution; that said section 38, after the clause requiring the maintenance of schools in each town, declares: “and one or more grammar schools be incorporated, and properly supported, in each county in this State. And all religious societies, or bodies of men, that may be hereafter united or incorporated, for the advancement of religion and learning, or for other pious and charitable purposes, shall be encouraged and protected, in the enjoyment of the privileges, immunities, and estates, which they in justice ought to enjoy, under such regulations as the General Assembly of this State shall direct.” Thus it is seen that the provision contained in the earlier Constitution that county grammar schools “ought to be established by Direction of the General Assembly,” was changed so as to read that they “be incorporated, and properly supported.” In other words, the *public* character of these schools contemplated by the provisions of the Constitution of 1777, was neither contemplated nor required by the provisions of the Constitution of 1786. The provision in the earlier Constitution that “one University in this State, ought to be established by Direction of the General Assembly,” was not carried into the Constitution of 1786, and has not since the adoption of that Constitution been any part of the organic law of the state. This Constitution contained no provision looking to the establishment of a university by the state. The only declaration therein that can fairly be said to comprehend an institution of higher learning is, that “all religious societies, or bodies of men, that may be hereafter united or incorporated, for the advancement of religion and learning, or for other pious and charitable purposes, shall be encouraged and protected, in the enjoyment of the privileges, immunities, and estates, which they in justice ought to enjoy, under such regulations as the General Assembly of this State shall direct.” The extent of this provision (so far as need be noticed) is, that institutions for the advancement of religion and learning “shall be encouraged and protected,” as therein specified. Exclusive of the land specifically granted for the benefit of Dartmouth College, there were in nearly every town charter granted by the State of Vermont, rights reserved to several public uses therein named, one of which rights (quoting from what seems to be a typical charter in this respect) was “for the use of a seminary or college,” and one “for the use of county grammar schools within said state,” which said two rights “for the use of a seminary or college, and for the use of county grammar schools, as aforesaid, and the improvements, rents, interests, and profits arising therefrom, shall be under the control, order, direction and disposal of the General Assembly of said state, forever.”

It is a matter of history that in 1785, Elijah Paine of Williamstown presented a memorial to the legislature, proposing the donation of two thousand pounds towards a college or university, on certain conditions, one of which was that said college or university be in the township of Williamstown. The matter of this offer ran along without receiving consideration by that body. At the session of the legislature in 1789, Ira Allen presented a memorial for a college, from which we quote the following:

“Having Honorable views toward the Public, and having a desire to make the Place I have chosen for my residence Respectable by the establishment of Liberal Arts & Sciences, I therefore name Burlington for that purpose,

* * *

“That so great an object may soon be affected, I offer to the Public four thousand pounds on the following conditions (viz) that the Legislature * * * Establish the place for erecting a College in this State at or within two miles of Burlington Bay in the County of Chittenden and appoint Trustees for the same—

“I bind myself my Heirs Executors and administrators firmly by these Presents, to pay to the Trustees of sd College the sd sum of four thousand Pounds, one Thousand of which is to be paid in a proper square of Lands sufficient to Erect all the Public buildings on, to form a handsome Green and convenient gardens for the officers of College, the Price of this tract of Land to be estimated by the major part of sd Trustees and the remaining part of sd Thousand pounds is to be paid to sd Trustees in provisions, materials and Labor in Erecting the Public Buildings, the remaining three Thousand pounds to be Paid to the sd Trustees in New Lands that will rent in produce, that is Wheat, Beef, Pork, Butter or Cheese Payable to the Trustees of sd College for the annual Interest at six Percent of sd Three Thousand pounds—”

In connection therewith he, Ira Allen, presented subscriptions from sundry other individuals for the same purpose, to the amount of one thousand six hundred fifty pounds, making a total of five thousand six hundred fifty pounds. It is said in a note to an Historical Discourse delivered by Rev. John Wheeler, D. D., President of the University of Vermont from 1833 to 1849, on the occasion of the Semi-Centennial Anniversary of that institution, that these various subscriptions from other individuals “are in his (Ira Allen’s) handwriting, and were all obtained by his active and personal attention to the business.”

Thereupon such steps were taken that an act incorporating the University of Vermont was passed November 3, 1791.

This act declared that the Governor of this state, the speaker of the house of representatives for the time being, and the president of the university when elected, should be *ex officio* trustees, and together with the ten other men named, (one of whom was Ira Allen,) and such others as should be appointed in manner and to the

number thereafter directed, should form and constitute the board of trustees for the said institution, to be known by the name and style of the Corporation of the University of Vermont. The said corporation and their successors in office were constituted a body corporate and politic, with the usual corporate privileges and powers, including self perpetuation; and with full power to take by gift, grant, purchase, or devise, any estate whether real or personal, for the use of the said university, "and to take charge of, lease, rent, and improve to the best advantage, all such grants as have been already made by the authority of this state, for the use and benefit of a college," and also to receive and appropriate such donations as had been, or thereafter should be made, for the use of the institution.

The charter as granted does not show that the University of Vermont, in its establishment, received any property from the state, beyond what arises, if any, from the phrase above quoted, fairly and properly construed.

The facts show that the charter of that corporation was granted at the instance of Ira Allen, and that the public buildings of the institution were erected on land of his gift, and designated by him, as before seen, for that purpose.

Who was the *perficient* founder of this institution? is an important question. The circumstances previously existing are not only interesting, they are instructive in reaching right conclusions. When Elijah Paine made his offer aforementioned toward a college or university to be located at Williamstown, the Constitution of 1777, requiring one university to be established by direction of the General Assembly as a part of the public school system of the state, was in force. Thompson (in his History of Vermont, Part 2, page 145) says the subject of this offer was postponed, "and the legislature could not be brought to take the matter into serious consideration till the October session in 1789." Whether the delay originally was in anticipation of a change in the Constitution, we need not conjecture. In the minds of some who have given the matter more or less study, the reason for the change seems enveloped in mystery. The reason is of little moment here, except as it may shed light upon subsequent actions and events. As viewed by the Commission, the most cogent reason is found in the conditions and the economic necessities of the people in the state. Under the Constitution of 1777, the public school system included town schools, county grammar schools, and a state university. The section relating thereto was entirely rewritten in the revision of the Constitution in 1786, eliminating the element that seems to have placed upon each town the burden of maintaining the schools established therein, making proper use of school lands; leaving county grammar schools to be incorporated and properly supported, like academies, as private institutions; and dropping out altogether the provision pertaining to the establishment of a state university.

Only a little more than half of the five years immediately following the signing of the definitive treaty between Great Britain and the United States, (called by John Fiske in his book entitled, "The Critical Period of American History," page 55, "the most critical moment in all the history of the American people,") had elapsed.

Though Vermont was then an independent state, she had not only fought against the mother country in the Revolutionary War, but she was being sorely troubled by New York, a condition threatening the homes, property, and prosperity of her people, destined to continue for some time to come and to be the chief obstruction to her admission into the Union. She was not admitted until February 18, 1791 less than nine months before the charter of the University of Vermont. Let us quote from Thompson's History of Vermont: (Part 2, page 79).

"The condition of Vermont at this period (years immediately following the end of the war), was much better than that of the confederated states. She had managed to pay her own troops during the war, by the avails of her public lands and other means, and having no connection with Congress, no part of the burden of the public debt of the United States rested on her. But she was not equally exempt from the other causes of dissatisfaction, which operated in the confederated states. Many of the people, though possessed of houses and lands, were, in other respects, in low and straitened circumstances and so much incumbered with debts, that their immediate payment in the presents scarcity of money, would require the sacrifice of all they had, and reduce themselves and families to a state of penury and starvation. Thus situated, it is not surprising, that the spirit of opposition to the judicial authority, which had manifested itself in the neighboring states, should make its appearance in Vermont.

"So early as the spring of 1784, a convention from several towns was assembled at Wells, by which sundry resolutions were passed in relation to the general sufferings and embarrassments of the people, and a liberal amount of execration was meted out to the lawyers and sheriffs, but no disposition was manifested in this state to oppose the collection of debts by force till the year 1786. During the summer of this year, the sufferings of the people becoming severe and their complaints loud, on account of the extreme scarcity of money, Governor Chittenden in the month of August published an address to the inhabitants of the state, which was evidently dictated by a paternal regard to their welfare and happiness. In this address he earnestly exhorts the people to be industrious and economical—to avoid as much as possible the purchase of foreign productions, and to give their attention to the raising of flax and wool, and the various necessities for food and clothing; and he expresses the anxious hope that by their prudence and diligence—by their mutual forbearance and kindness—together with such assistance as the legislature should, at its next session, be able to afford,—their sufferings would be brought to a speedy termination, and themselves become a prosperous and happy people.

"In October, the legislature met at Rutland, and measures, designed to relieve the pecuniary embarrassments of the people, occupied a large share of the session. * * * But these several acts and resolutions did not serve to quiet all the people; for there were many who did not intend to be compelled to pay their debts in any way, and they judged it the shortest method of avoiding payments to prevent the sitting of the courts, in which judgments and executions might be obtained against

them; and two attempts of this kind were made shortly after the session of the legislature at which the above acts and resolutions were passed, one in the county of Windsor, and the other in the county of Rutland."

In speaking of the education of the early settlers of Vermont, Thompson says (Part 2, page 141): "Few of the early settlers of Vermont enjoyed any other advantages of education than a few months' attendance at primary schools, as they existed in New England previous to the revolution. But these advantages had been so well improved, that nearly all of them were able to read, and write a legible hand, and had acquired sufficient knowledge of arithmetic for the transaction of ordinary business. They were, in general, men of strong and penetrating minds, and, clearly perceiving the numerous advantages, which education confers, they early directed their attention to the establishment of schools. But for many years there were obstacles, in addition to those incident to all new settlements, which prevented much being done for the cause of education. The controversies in which they were involved and the war of the revolution, both of which threatened the annihilation of Vermont as an independent state, and the ruin of many of the settlers by robbing them of their farms, employed nearly all their thoughts and all their energies, previous to their admission into the federal union."

At the session of the legislature in October, 1781, an Act was passed enabling the inhabitants of the several towns within the state to levy on the lands therein such tax or taxes as they should agree to, not exceeding, in the whole, two pence per acre, for the purpose, among other things, of building school houses. This seems to have been the first enactment in this state authorizing the laying of taxes for purposes pertaining to public education. At the session of the legislature in October, 1782, a general law was passed, providing for the division of towns into convenient school districts, and for the appointment of trustees in each town for the general superintendence of the schools, and to have charge of any property or funds held by the town for the purposes of town schools, and to render an account of their doings, to the town, as often as required. The Act further provided for the election of a prudential committee by the inhabitants of each district, which committee was empowered to raise one-half the money necessary for building and repairing a school house and supporting a school, by a tax assessed on the grand list, and the other half, either on the list or on the polls of the scholars, as should be directed by a vote of the district. By the same Act the judges of the county courts, in their respective counties, were empowered to appoint trustees of county schools, who should have the same powers in all matters relating to their trust, as trustees of town schools, and should in like manner, be accountable to the judges by whom they were respectively appointed. And said judges, calling to their assistance the justices of peace in their several counties, were given the power to lay a tax on the same "for the purpose of building a county school house. To be collected by warrant by the state treasurer in the same manner as state taxes are."

Thompson says, (page 141) "The part of this plan relating to county schools

seems never to have been carried into effect; but that in relation to town schools, was gradually introduced and improved, till schools, which may be called free, were established in all the organized towns in the state."

An examination of the early statutes shows, that so much of the law of the said Act of 1782, as related to county schools and laying taxes for the purpose of building county school houses, continued in force until the rising of the February session of the legislature, 1787; that an Act establishing the Constitution of 1786 as the Constitution of Vermont, was passed March 3, 1787; and that "An Act for Appointing and Supporting Schools," was passed March 8, 1787, one clause of which reads, "And the Judges of the County Courts, in their respective counties, shall have power to appoint Trustees of county schools, who shall have the same powers, in all matters relating to their trust, as Trustees of town schools, and shall be in like manner accountable to the Judges by whom they were respectively appointed." But it did not authorize the laying of taxes for the purpose of building county school houses.

The county schools referred to in the Act of 1782, and also in this Act of 1787, must have been the county grammar schools mentioned in the Constitution. What action on the part of the state, in addition to that of changing the Constitution itself, could be more indicative of a purpose to change the educational policy of the state than the facts, that during the existence of the first Constitution, when county grammar schools were a part of the public school system and there existed a statute permitting the assessment of a tax for the building of county school houses for such schools, the law was never carried into effect; that when the Constitution was changed, excluding from the public school system county grammar schools and a state university, the statute permitting the laying of a tax to build county school houses, was no longer retained in force; and that thereafter (the first, in October, 1787,) county grammar schools were incorporated in nearly or quite all of the different counties in the state, severally supported by grants from the legislature of the use and benefit of grammar school lands in counties where such lands exist—all, like academies, private institutions, for the maintenance of which, so far as the Commission is aware, there has never been a law permitting a tax to be laid. Is it not reasonable to say, therefore, that the change in the Constitution marked a change in public policy consequent on the conditions and economic necessities of the people?

It is said by Mr. Justice Story in the great case of Dartmouth College against Woodward, reported in the 4th of Wheaton, page 518, that what is deemed a foundation, and who is the founder, cannot be stated with more brevity and exactness than in the language of Sir William Blackstone in his Commentaries on the Laws of England, and he quoted from Book 1, page 480, as follows:

"The founder of all corporations, in the strictest and original sense, is the king alone, for he only can incorporate a society; and in civil incorporations, such as mayor and commonalty, etc., where there are no possessions or endowments

given to the body, there is no other founder but the king; but in eleemosynary foundations such as colleges and hospitals, where there is an endowment of lands, the law distinguishes, and makes two species of foundation; the one *fundatio incipiens*, or the incorporation, in which sense the king is the general founder of all colleges, and hospitals; the other *fundatio perficiens*, or the dotation of it, in which sense the first gift of the revenues is the foundation, and he who gives them is in law the founder: and it is in this last sense that we generally call a man the founder of a college or hospital." It has been held in England, by the Privy Council (In the Matter of the Endowed Schools Act, and In the Matter of the St. Leonard, Shoreditch, Parochial Schools, found in 10th Appeal Cases, page 304), that where a charity is established by subscriptions, the original subscribers alone are the founders; but that it is quite impossible to attribute this character to those who come after them, whether they contribute to the building fund or any other fund in aid of the existing charity or not; that it is reasonably plain that when a foundation be once started, though by small beginnings, everything afterwards added, which is not an endowment for a new and special purpose, must be taken to be upon the footing of the original foundation.

At the time Ira Allen presented his memorial for a college at Burlington he was 38 years old. Since before the adoption of the Constitution of 1777 he had been preeminently active in civil, military, and diplomatic affairs of the state, and had become probably the wealthiest man in the state, having landed estate lying mostly along the lake of over 200,000 acres, some of which was in Burlington. Being thus prominent and financially able, it is not strange that he should think of founding a college in Burlington, the town of his future residence, and for that purpose offer to give four thousand pounds, specifying in the original instrument of endowment that one thousand of it "is to be paid in a proper square of Lands to Erect all the Public buildings on, to form a handsome Green and convenient gardens for the officers of College, * * *" One comprehends the munificence of this gift when one considers that (in the language of Professor John Ellsworth Goodrich, in the "Centennial Oration," delivered Commencement Day, June 29, 1892, on "The Life and Public Services of General Ira Allen,") "Harvard College rests upon an original appropriation by the colony of but four hundred pounds, and its name is a magnificent monument to the man by whose will it received some eight hundred pounds and a small library"; and (in the language of Robert D. Benedict, in an oration delivered upon the Centennial Anniversary, June 24, 1891,) "The largest donation received by Harvard, up to 1836, was only half as large."

In the same connection Mr. Benedict further says concerning the gift of Ira Allen and the University of Vermont: "His subscription was by far the largest part of all the subscriptions; and the subscriptions were substantially the only foundation of the university. The legislature in granting the charter did indeed give to it the lands which had been reserved in the various township grants for the use and benefit of a college, which amounted to a little more than had been granted

to Dartmouth College. But these grants were of little avail for the expenses of beginning. * * *

"As I have said, the legislative grant of lands was of little avail at first. It was stated in a report made by the trustees to the Legislature in 1804, that the total amount of money which they had actually received from these lands granted by the Legislature had been \$79.42, or about \$7 a year for the thirteen years which had passed since the charter was granted.

"The university was, therefore, put in motion with funds contributed by individual citizens, and the subscription of Ira Allen may be well considered its corner stone. * * *"

The views expressed by Mr. Goodrich, an honorable, able, and efficient professor in the university for many years, and now a professor emeritus, are even more emphatic in the same direction. In his oration, from which we have already quoted, he further said:

"The founding of the University of Vermont was but an incident, albeit a most important one, in Allen's contribution toward the building of the State. His sagacious mind clearly discerned the true relations between education on the one hand, and patriotism and politics on the other. A complete intellectual independence would tend to strengthen and consolidate that moral and political independence which should characterize a self-governing community.

* * *

"Allen selected as a location for the future University a lot of 50 acres, one of the sightliest in all the Champlain Valley. Portions of it were alienated in the early days from time to time for reasons which one can recall only with mingled sorrow and indignation, until only an acre and a half remained.

"One of the reasons which in 1797 Allen urges for the speedy determination of his suit before the Admiralty Court, (in England,) was his desire to 'erect public buildings for the University of Vermont,' the materials for which he had already caused to be prepared. 'These are kept,' he says, 'in a state of ruinous suspense by my absence.'

* * *

"If I venture to suggest to the honorable board of trustees the propriety of ordaining that from this time forward, the first of May, the natal day of Ira Allen, shall be set in the calendar of the University of Vermont as Founder's Day, to be observed as a holiday forever, significant at once of her origin, and of the new life pulsing continually in her veins of perennial and ever burgeoning prime, I have small fear that any alumnus will enter his protest against the innovation, or that the under-graduate body will petition against such use of one day in the year in grateful recognition of our debt to our earliest benefactor."

This suggestion of Professor Goodrich seems to have been acted upon by the board of trustees at their next annual meeting, June 27, 1893. The records of that meeting contain the following: "On motion it was voted that the faculty be instructed to arrange, in their discretion, for the due observance of Founder's Day." And the current number of its catalogue, the University of Vermont and State Agricultural College refers to Ira Allen as "the founder of the university."

In addition thereto, the Commission understands that in accordance with the suggestion of Professor Goodrich and pursuant to said vote, "Founder's Day" has hitherto been annually observed.

Notwithstanding this, it is said in a brief, presented to the Commission by the University of Vermont and State Agricultural College, that the offer of Ira Allen in his memorial is to give the sum named "to the public;" and that he understood that the university was to be a state institution, is thus established. A fair construction of the words named can be had only by viewing the whole instrument. In a previous paragraph, General Allen says: "Having Honorable views toward the Public, and having a desire to make the Place I have chosen for my residence Respectable by the establishment of Liberal Arts & Sciences, I therefore name Burlington for that purpose, * * *

"That so great an object may soon be affected, I offer to the Public four thousand pounds on the following conditions * * *

"I bind myself my Heirs Executors and administrators firmly by these Presents, to pay to the Trustees of sd College the sd sum of four thousand Pounds," etc.

In the Dartmouth College case counsel for the defendant insisted that the beneficial interest in the property given to that institution was in the people of New Hampshire. There the charter runs thus: "Know ye therefore, that we, considering the premises, and being willing to encourage the laudable and charitable design of spreading christian knowledge, * * * and also that the best means of education be established, in our province of New-Hampshire, for the benefit of said province, do of our special grace," etc. Thereupon Chief Justice Marshall said: "Do these expressions bestow on New-Hampshire any exclusive right to the property of the college, any exclusive interest in the labors of the professors? Or do they merely indicate a willingness, that New-Hampshire should enjoy those advantages, which result to all from the establishment of a seminary of learning in the neighborhood? On this point we think it impossible to entertain a serious doubt. The words themselves, unexplained by the context, indicate, that the 'benefit intended for the province' is that, which is derived from 'establishing the best means of education therein;' that is, from establishing in the province Dartmouth College, as constituted by the charter."

The words "for the benefit of said province," there used, are stronger looking toward a *public* institution in the legal sense than the words of Ira Allen, "to the public." It is very apparent that he used the word "public," as he did in the first paragraph quoted, in its popular sense, for the establishment of a college at

Burlington, not as a strictly public institution, but as an institution which should inure to the public good, by the general promotion of learning. It is said by the Supreme Court of this state (in Franklin County Grammar School against Bailey, found in 62d of Vermont Reports, page 467, and quoting from the Dartmouth College case.) "The objects for which a corporation is created are universally such as the government wishes to promote. They are deemed beneficial to the country; and this constitutes the consideration of the grant."

The obligation is contained in the next paragraph, and it is, "I bind myself * * *, to pay to the trustees of sd College, the sd sum," etc.

It is further said in the same brief that by the charter of the University of Vermont, lands were granted by the state to that corporation, and hence the foundation was public, and the fact that Ira Allen contributed to the foundation does not affect its character; that "it was the established principle of the common law that if the King and a private individual joined in endowing a charitable corporation, the King alone was the founder thereof."

This position taken in the brief requires careful examination along the lines there indicated. It will be called to mind that in the granting of the charter of the University of Vermont, that corporation was given full power "to take charge of, lease, rent, and improve to the best advantage, all such grants as have been already made by the authority of this state, for the use and benefit of a college." It contained no provision either expressly or impliedly giving that institution the right to appropriate to its own use and benefit said lands or the income therefrom. The power given was more in the nature of that of an agency to take charge of, lease, etc., said lands as there directed. Beyond that, the matter of these lands and the rents, interests, and profits arising therefrom, were yet under the control, order, direction, and disposal of the General Assembly. It is said by the Supreme Court of the United States (in the case of Newton against Board of County Commissioners of Mahoning County, found in the 100th of the United States Reports, page 548), that "No grant can be raised by mere inference or presumption, and the right granted must be clearly defined. * * * The rule of construction in this class of cases (public grants) is that it shall be most strongly against the corporation. Every reasonable doubt is to be resolved adversely. Nothing is to be taken as conceded but what is given in unmistakable terms or by an implication equally clear. The affirmative must be shown. *Silence is negation, and doubt is fatal to the claim.* This doctrine is vital to the public welfare." The same doctrine is discussed and applied by that Court in the recent case of Blair against Chicago, found in the 201st of the United States Reports, page 400.

That the lands had not in terms been granted to *the use and benefit* of the University of Vermont, seems to have been understood, for on November 10, 1802, an Act was passed, entitled "An act in addition to, and explanation of an act, entitled 'an act for the purpose of founding a University at Burlington,' passed the third day of November, A. D. one thousand seven hundred and ninety one."

The preamble and section 1 of this Act of 1802, read:—

“Whereas doubts have arisen, whether the corporation of the University of Vermont, have a right to appropriate, to the use and benefit of said university, the rents and profits of all such lands as have been already granted and reserved, by the authority of this state, for the use and benefit of a college, or for the use and benefit of a seminary or college. And, Whereas it is thought necessary, that further additions be made to said act for said university—Therefore,

SECTION 1

“It is hereby enacted by the General Assembly of the State of Vermont, That the corporation of the University of Vermont, is hereby vested with full power, right and authority to take charge of, lease, rent, and appropriate to the use and benefit of the University of Vermont, all such lands as have been already granted and reserved, by the authority of this state, for the use and benefit of a college, or for the use and benefit of a seminary or college; and the same to continue, until the further order of the legislature.”

It will be observed that the legislature did not, by this Act, undertake to declare the construction of the provision of the charter empowering the University of Vermont “to take charge of, lease, rent, and improve to the best advantage, all such grants as have been already made by the authority of this state, for the use and benefit of a college.” Without saying anything about the construction of the charter as it existed in this respect, the legislature enacted an amendment thereto in terms materially different from the original charter. The words “and improve to the best advantage, all such lands,” etc., are changed to read, “and appropriate to the use and benefit of the University of Vermont, all such lands,” etc., thus, in a distinct manner, in terms, changing the pre-existing provision; nor was this all: there were added the words of limitation, “and the same to continue, until the further order of the legislature.” As thus amended, the charter remained until an Act was passed on November 2, 1810, by which the corporation was vested with full power, right, and authority, to take charge of, etc., and appropriate all such lands to the use and benefit of said university *forever*, the same Act expressly repealing section 1 of the Act of 1802, quoted above. In view of the said provision of the original charter, and the provisions in the said amendatory Acts, relating to the same subject-matter, it is not apparent to the Commission how it can be said from a legal standpoint, that in the original charter power was granted to appropriate said lands, or the rents and profits therefrom, to the use and benefit of the University of Vermont.

Lest it be said, however, that in granting the charter of that corporation, the intention of the General Assembly was to include within the power vested the right to appropriate said lands to the use and benefit of that institution, and that it was always so treated before the passage of the said Act of 1802, and that it should be

so treated now, we assume all this to be true and discuss the matter from that point of view.

Concerning the principle of law invoked in the brief of the University of Vermont and State Agricultural College, that if the King and a private individual join in endowing a charitable corporation, the King alone is the founder, Mr. Serjeant Stephen, in his *Commentaries on the Laws of England*, Vol. 3, page 26, states as follows: "And if the sovereign and a private man join in endowing an eleemosynary foundation, the sovereign alone shall be the founder of it; for here the royal prerogative prevails." This same principle is stated by Sir William Blackstone, in his *Commentaries*, Vol. 1, page 481. Mr. Serjeant Stephen further says (Vol. 2, page 465), "By the word prerogative we are to understand the character and power which the sovereign hath over and above all other persons, in right of his regal dignity; and which, though part of the common law of the country, is out of its ordinary course. This is expressed in its very name, for it signifies, in its etymology, something that is required or demanded, *before*, or in preference to, all others; and, accordingly, Finch lays it down as a maxim, that the prerogative is that law in case of the king, which is law in no case of the subject."

Jacob's Law Dictionary defines the word "prerogative" as follows: "By the word *Prerogative* is usually understood, that special pre-eminence, which the King hath over and above all other persons, and out of the ordinary course of the common law, in right of his regal dignity. It signifies, in its etymology from *prae* and *rogo*, something that is required or demanded before, or in preference to all others. And hence it follows, that it must be in its nature singular and eccentric; that it can only be applied to those rights and capacities, which the King enjoys alone in contradiction to others; and not to those which he enjoys in common with any of his Subjects: for if once any prerogative of the Crown could be held in common with any subject, it would cease to be prerogative any longer. *Finch*, therefore, lays it down as a maxim, that the prerogative is that law in case of the King, which is law in no case of the subject. *Finch*, L. 85.

"Prerogatives are either *direct* or *incidental*. The *direct* are such positive substantial parts of the royal character and authority, as are rooted in, and spring from, the King's political person, and of which we are about to state the law at some length. But such prerogatives as are *incidental* bear always a relation to something else, distinct from the King's person, and are indeed only exceptions in favour of the Crown, to the general rules established for the rest of the community; * * * Other incidental prerogatives are, that where the title of the King and a common person concur, the King's title shall be preferred. 1 *Inst.* 30."

"* * * it hath been established as a rule, that all prerogatives must be for the advantage of the people, otherwise they ought not to be allowed by law. *Moor* 672; *Show*. P. C. 75."

Though so much of the common law of England as is applicable to our local situation and circumstances, and is not repugnant to the Constitution or the laws,

is the law in this state, yet in the judgment of the Commission this principle of the King's prerogative, which is out of the ordinary course of the common law and places the sovereign before, or in preference to, all others in this respect, is not applicable to our local situation and circumstances, and therefore it is not a part of the common law of this state. Moreover, it seems that this law of prerogative (invoked in the brief) is not recognized in this country.

In the case of *The Bank of the United States against The Planters' Bank of Georgia*, in 9th of Wheaton, 904, the action was brought on promissory notes; one question was, whether the circumstance that the State of Georgia and certain individuals were members of the defendant bank, brings the cause within the clause of the Federal Constitution giving jurisdiction to the Supreme Court where the state is a party. The opinion by Chief Justice Marshall contains the following:

"It is, we think, a sound principle, that when a government becomes a partner in any trading company, it divests itself, so far as concerns the transactions of that company, of its sovereign character, and takes that of a private citizen. Instead of communicating to the company its privileges and its prerogatives, it descends to a level with those with whom it associates itself, and takes the character which belongs to its associates, and to the business which is to be transacted."

In the case of *Downing against the Indiana State Board of Agriculture*, decided by the highest court of the State of Indiana, found in the 12th of Lawyers' Reports, Annotated, page 664, the Indiana State Board of Agriculture, a body corporate with perpetual succession, having as *ex officio* members the president of each county agricultural society, and held to be in a sense an educational institution, received part of its funds from the state, but for the most part its funds were received from private citizens, railroad companies, etc. The question of whether the corporation was private in character was presented, the court stating that it must be determined by the construction of the Act of incorporation. Citing the decision of the Supreme Court of the United States in the aforementioned case of the Bank of the United States against The Planters' Bank of Georgia, and other authorities, to the effect that if the whole interest does not belong to the government, that is, if a corporation is founded in part by private benefaction and part by funds derived from the bounty of the government itself, the corporation is private, it was held that the Indiana State Board of Agriculture was a private, not a public, corporation.

In the case of *Thomas against The Industrial University*, found in 71st of Illinois Reports, page 310, the corporation was held to be a state institution and not subject to mechanics lien law. The Court said:

"The officers of the incorporation are paid, either directly or indirectly, from funds belonging to the state. All of the interest derived from the funds invested, from rents from real estate, and for tuition paid by pupils or otherwise, belongs to the state, and hence there can be no pretence that the institution is private, or is to be governed by laws relating to private persons or corporations.

"Had this body been mixed in its character, and a part had been held by private

individuals, and another part held by the state, then the rule would, no doubt be different. It has been held, that, where the state enters into trade or business with private individuals associated together in a corporate capacity, then such organization may be subjected to all of the legal remedies which apply to private corporations. * * *

And in the case of Regents of the University of Maryland against Williams, found in 9th of Gill and Johnson's Reports, page 365, and in 31 of American Decisions, page 72, the highest court in Maryland said:

"And all the authorities agree that colleges and academies established for the promotion of learning and piety, and endowed with property by public and private donations, are, in a legal sense, equally with hospitals for the relief of the poor, sick, etc., considered and treated as private eleemosynary corporations."

It will be remembered that the subscriptions presented by Ira Allen in addition to his personal offer, were obtained by his own efforts and were in his own handwriting. Is it too much to say that the sums so subscribed were contributions made upon his solicitation to swell the fund of his charity? If it is not, then the total fund should be considered his charity; but if this cannot justly be said, then every subscriber or contributor to that original fund should be considered a founder. This is in accordance with the doctrine laid down in the Matter of the Endowed Schools Act and in the Matter of the St. Leonard, Shoreditch, Parochial Schools, to which we have already made reference.

Whichever of these two ways be correct, it seems clear to the Commission, upon the facts and the law, that the Corporation of the University of Vermont was made to rest upon a private foundation, and that Ira Allen (in case the total fund by him presented is to be considered as his charity) was the *perficient* founder; but if his charity was confined to his personal gift, than all of those whose subscriptions or contributions entered into the original fund were the *perficient* founders, the principal of whom was Ira Allen.

The act of incorporation did not grant political power; nor did it create a civil institution to be employed in the administration of the government; nor were its trustees, excepting the governor of this state, and the speaker of the house of representatives for the time being, who were *ex officio* members, public officers exercising powers conferred by the public for public objects; nor were the funds of the university public property; nor was the State of Vermont, as a government, alone interested in the transactions of the university,—so that the legislature of the state could act according to its own judgment, without restraint by limitation of power imposed by the Constitution of the United States prohibiting the impairment of the obligations of contract, without regard to reserved power in the act of incorporation.

On the other hand the institution was endowed with a capacity to take real or personal property by gift, grant, purchase, or devise, for the use of the university—objects unconnected with state government; to appoint, elect, support and re-

move all such officers and servants as they should find necessary; to direct the studies of youth; to establish professorships and professors, and provide for their support; to make and establish rules, regulations, and by-laws for the government of the university, not repugnant to the Constitution and laws of the state, nor tending to religious preference; to grant and confer all such degrees, literary titles, honors and distinctions as other universities, colleges, and seminaries have done, or may of right do; to increase the number of trustees, as they should think proper, the whole not to exceed a number stated. Further review of the charter is unnecessary. We will call attention to the law laid down by courts in cases involving the same question.

In the case of Regents of the University of Maryland against Williams, to which reference is made above, one question was whether the "Regents of the University" was a public or a private corporation. Thereon the court of last resort in Maryland said:

"A public corporation is one that is created for political purposes, with political powers, to be exercised for purposes connected with the public good in the administration of civil government; an instrument of the government subject to the control of the legislature, and its members officers of the government, for the administration or discharge of public duties, as in the cases of cities, towns, etc.; so where a bank is created by the government for its own uses, and the stock belongs exclusively to the government, it is a public corporation; and so of a hospital created and endowed by the government for general purposes of charity.

"The corporation of the university has none of the characteristics of a public corporation. It is not a municipal corporation. It was not created for political purposes, and is invested with no political powers. It is not an instrument of the government created for its own uses, nor are its members officers of the government, or subject to its control in the due management of its affairs, and none of its property or funds belong to the government. The state was not the founder, in the sense of that term, as applied to corporations. It was the creator only, by means of the act of incorporation, and may be called the incipient, not the perficient founder. It gave to it in its creation the capacity to acquire and to hold property, but made to it no donation; and whatever property the corporation has, is its own, to be managed and disposed of by the regents for the uses of the institution, in such manner as they may judge most promotive of its interests, and not for the uses of the government, nor in the exercise of any political powers, but as the trustees merely for the university. It is said there have been subsequent endowments by the state. If it be so, that cannot affect the character of this corporation. If eleemosynary and private at first, no subsequent endowment of it by the state could change its character, and make it public."

The elements essential to the determination of the character of the University of Vermont, as originally chartered, are not materially different from those pertaining to Dartmouth College, as shown in the Dartmouth College case, upon

which that college was held by the Supreme Court of the United States to a be private eleemosynary institution. One of the questions involved was, whether "The Trustees of Dartmouth College," was a private corporation as contended by the plaintiff, or a public corporation as contended by the defendant. Therein Mr. Justice Story said:

"Public corporations are generally esteemed such as exist for public political purposes only, such as towns, cities, parishes, and counties; and in many respects they are so, although they involve some private interests; but strictly speaking, public corporations are such only as are founded by the government for public purposes, where the whole interests belong also to the government. If, therefore, the foundation be private, though under the charter of the government, the corporation is private, however extensive the uses may be to which it is devoted, either by the bounty of the founder or the nature and objects of the institution. * * *

"A hospital founded by a private benefactor is, in point of law, a private corporation, although dedicated by its charter to general charity. So a college, founded and endowed in the same manner, although, being for the promotion of learning and piety, it may extend its charity to scholars from every class in the community, and thus acquire the character of a public institution. This is the unequivocal doctrine of the authorities, and cannot be shaken but by undermining the most solid foundations of the common law."

In *Allen against McKeen*, found in 1 of Sumner's Reports, page 276, the same question was before the court respecting the character of Bowdoin College, whether it is a private or a public corporation. In determining the question there, Mr. Justice Story also said:

"That a college, merely because it receives a charter from the government, though founded by private benefactors, is not thereby constituted a public corporation, controllable by the government, is clear beyond any reasonable doubt. So the law was understood by Lord *Holt*, in his celebrated judgments in *Phillips v. Bury*, (1 Ld. Raym. R. 8; S. C. 2 T. R. 346.) * * *. Nor does it make any difference, that the funds have been generally derived from the bounty of the government itself. The government may as well bestow its bounty upon a private corporation for charity, as upon a public corporation; and its funds once bestowed upon the former become irrevocable, precisely in the same manner, and to the same extent, as if they had been bestowed upon an individual. The government cannot resume a gift, once absolutely made to a private person; neither can it resume a like gift to a private corporation. It is true, that the government may reserve such a power in granting a charter, if it chooses so to do;" It was held that Bowdoin College was a private and not a public corporation, as "It answers the very description of a private college, as laid down by Mr. Chief Justice *Marshall*," in the Dartmouth College case.

Nor did the fact that the state granted to the University of Vermont, to be leased for its use and benefit, lands reserved to the use and benefit of a college or

seminary, (if the fair and proper construction of the charter, as originally granted, should be in law to this effect,) operate to make the character of the corporation public. It is said by Chancellor Kent (2 Kent's Commentaries, marginal page 276), "A charity may be public, though administered by a private corporation. A devise to the poor of a parish is a public charity. The charity of almost every hospital and college is public, while the corporations are private. To hold a corporation to be public, because the charity was public, would be to confound the popular with the strictly legal sense of terms, and to jar with the whole current of decisions since the time of Lord Coke." And it appears from what is said in the case of Downing against Indiana State Board of Agriculture, (to which reference has been made,) that a college founded and endowed by private benefaction, though for the general promotion of learning, is private; and that a college, merely because it received a charter from the government, if founded by private benefactors, is not thereby constituted a public corporation controllable by the government; nor does it make any difference that the funds have generally been derived from the bounty of the government.

It is further said in the brief mentioned that most of these reservations in the town charters were made prior to the change in the Constitution, "and the lands so reserved were obviously reserved to the use of the college called for by the Constitution,—which would be, as noted, a public institution;" and that there is nothing to indicate that the reservations in the grants made after the adoption of the Constitution of 1786 were for an institution different in character. The fallacy of this position is obvious. It will be remembered that, in connection with rights reserved in charters of towns, *for the use* of a seminary or college, are rights reserved *for the use* of county grammar schools, and that the two rights so reserved were, in the same sentence and in the same terms, to be *under the control, order, direction, and disposal of the General Assembly of the state, forever*. Regarding such lands, the Supreme Court (in the case of the Trustees of Caledonia County Grammar School against Burt, found in the 11th of Vermont Reports, page 632,) said: "Over these two rights, the legislature had an absolute and entire control and disposal, for the use and purposes for which they were reserved. Of the one for the use of grammar schools, it had the power to grant it to any one or more, and upon such limitations and conditions as the legislature chose to express, or without any condition whatever, in which case it would have only the implied condition that the use must ever be applied to the purpose of the grant." And in Orleans County Grammar School against Parker, (found in 25th of Vermont Reports, page 696,) it was held that the General Assembly could divide such lands between two grammar schools in the same county. What the General Assembly could do in this respect with the county grammar school lands, it could do with respect to the lands reserved to the use of a seminary or college, for the power in the General Assembly regarding them is exactly the same. Of course this must not be understood as giving the legislature the power to violate the obligation of a grant of such lands once made to a private

corporation, without reserved power giving the right of future legislation respecting them.

Does the grant of such grammar school lands to the trustees of county grammar schools in the Act of incorporation operate to make the corporation *public*? This question was answered by the highest judicial tribunal in the state in the Caledonia County Grammar School case, cited above, and also in a later case presently to be mentioned. Referring to the former, the town of Lyndon, in the county of Caledonia was chartered in 1780, the charter reserving one-seventieth part for the use of a college, and one-seventieth part for the use of county grammar schools, "which two-seventieth parts for the use of a seminary or college, and for the use of county grammar schools, as aforesaid, and the improvements, rents, interests, and profits arising thereupon, shall be under the control, order, direction and disposal of the General Assembly of said state forever." By an Act passed in 1795, the persons therein named and their successors were declared to be a body corporate and politic in law, to be called and known as "The Trustees of Caledonia County Grammar School," for the purpose of sustaining a grammar school at Peacham, and were authorized and empowered to hold and lease for the use and benefit of said institution, the lands lying within that county, granted for the use and benefit of a county grammar school, the legislature reserving no right to alter, modify, or repeal the charter. In 1831, the legislature incorporated a second county grammar school in that county, at Lyndon. In 1836, the legislature passed an Act authorizing the trustees of this second school to take possession of the grammar-school lands in Lyndon and in certain other towns in the county, and to hold the same; and if the same had been leased, the tenants were directed to attorn to these trustees. The Supreme Court, holding that the grant by the state to the Grammar School at Peacham vested an indefeasible title and was a contract which the state had no power to impair by subsequent legislation, and that the subsequent grant of a part of said lands to the grammar school at Lyndon was an impairment of the obligation of a contract, contrary to the Constitution of the United States and void, said, "That the trustees of a college, grammar-school or seminary of learning is such a corporation as cannot, without their own consent, be modified, vacated or controlled by act of the legislature, as may be done with counties, towns or other municipal or civil corporations, is fully decided in Trustees of Dartmouth College v. Woodward, 4 Wheaton, 518." This in effect was a holding that the Caledonia County Grammar School at Peacham was a private corporation. The same holding was had in the essentially similar case of Franklin County Grammar School against Bailey, to which reference has been made. It follows that the granting of such lands to county grammar schools in Acts of incorporation passed after the adoption of the Constitution of 1786, did not operate to make those corporations public in character, even though the lands so granted were reserved in town charters for the use of county grammar schools at a time when the Constitution of 1777 was in force, and by it county grammar schools were to be established as part of the public

school system of the state. This being so, how can it be said that the grant of the power to take charge of, lease, rent, and improve the lands reserved to the use of a seminary or college, to the University of Vermont, had the effect to make that corporation public in character?

The charter states that "it shall not be lawful for the said corporation to hold in lands, lying within this state, to a greater quantity than seventy thousand acres; unless by consent of the legislature of this state, by a law obtained for that purpose; anything herein contained to the contrary notwithstanding." This provision restricting the quantity of lands in the state which the corporation might hold, except by special consent of the legislature, was wisely inserted to guard against too great accumulation of such property in the hands of this corporate body authorized to acquire and hold property for corporate purposes, and having an indefinite existence. But there was no reason for such a restriction if the corporation was public and consequently of state control.

The charter further provided, that the said trustees, when required by the legislature, lay before them the state and conditions of the funds of the university, together with all appropriations by them made, and the by-laws, rules and regulations for the government of said institution, for their examination, approbation, and revision. This was not the reservation of visitatorial powers as they exist at common law. Regarding such powers Chancellor Kent (in 2 Kent's Commentaries, marginal page 300) says:

"To eleemosynary corporations, a visitatorial power is attached as a necessary incident. * * * If the corporation be public, in the strict sense, the government has the sole right, as trustee of the public interest, to inspect, regulate, control, and direct the corporation, and its funds and franchises, because the whole interest and franchises are given for the public use and advantage. Such corporations are to be governed according to the laws of the land. * * * But private and particular corporations, founded and endowed by individuals for charitable purposes, are subject to the private government of those who are the efficient patrons and founders. If there be no visitor appointed by the founder, the law appoints the founder himself, and his heirs, to be the visitors. * * * This power is judicial and supreme, but not legislative. He is to judge according to the statutes and rules of the college or hospital," and the decision of the visitor is final and without appeal. "In most cases of eleemosynary establishments, the founders do not retain this visitatorial power in themselves, but assign or vest it in favor of some certain specified trustees or governors of the institution. It may even be inferred, from the nature of the duties to be performed by the corporation or trustees for the persons interested in the bounty, that the founders or donors of the charity meant to vest the power of visitation in such trustees. This was the case with Dartmouth College, according to the opinion of the Supreme Court of the United States, in the case of *Dartmouth College v. Woodward*. Where governors or trustees are appointed by a charter, according to the will of the founder, to manage a charity, (as is usually the case in

colleges and hospitals,) the visitatorial power is deemed to belong to the trustees in their corporate character."

The trustees named in the charter were incorporated and given power to make and establish all necessary rules, regulations, and by-laws (not repugnant to the Constitution and laws of the state), "and to do any other thing which shall be found necessary for the government and welfare of such an institution." In law trustees so incorporated are deemed to have visitatorial power, and particularly so in this instance, since Ira Allen was one of the trustees and consequently a visitor of his own charity. It was said by Daniel Webster in arguing the Dartmouth College case before the Supreme Court of the United States, that in New England, and perhaps throughout the United States, eleemosynary corporations have been generally established by incorporating governours, or trustees, and vesting in them the right of visitation. Further saying: "Small variations may have been in some instances adopted; as in the case of Harvard College, where some power of inspection is given to the overseers, but not strictly speaking, a visitatorial power, which still belongs, it is apprehended to the fellows, or members of the corporation. In general, there are many donors. A charter is obtained, comprising them all, or some of them, and such others as they choose to include, with the right of appointing their successors. They are thus the visitors of their own charity and appoint others, such as they may see fit, to exercise the same office in time to come. All such corporations are private." It was said by Mr. Justice Story in the same case, that "where trustees or governours are incorporated to manage the charity, the visitatorial power is deemed to belong to them in their corporate character."

The power of the legislature to require of the trustees a report of the funds of the university, together with the appropriations made by them, and the by-laws, rules and regulations of the institution, for their examination, approbation, and revision, falls far short of visitatorial powers under the common law. The powers thus reserved are not greater than the legislature might well require respecting such corporation of its creation having the powers and the limitations of the charter, including that of taking charge of, leasing, renting, and improving the lands reserved by the authority of the state to the use of a seminary or college. The provision in this respect was a condition imposed by the state in granting the charter.

Further discussion hardly seems necessary to satisfy any one of the character of the University of Vermont. In the judgment of the Commission, the corporation of the University of Vermont, as originally chartered, was not a public corporation, but it was a private eleemosynary institution.

By the last section of the Act of 1791, the Governor of the State was empowered and requested to issue to the trustees named therein and to their successors a charter of incorporation, made in due form of law, in accordance with that act. It appears that no such charter was in fact ever issued by the Governor. However, in the opinion of the Commission, this is of no material consequence, (except as it may form a part of the conditions at the time of the passage of the Act of 1810, herein-

after noticed,) for, if such a charter had been issued, in legal effect it would be as broad and no broader than the act of the legislature directing it. So, in this instance, and in any other instance coming before the Commission, the act creating the corporation is deemed its charter and is referred to as such; and any legislative amendment thereto is considered an amendment to the charter.

It appears from the records of the corporation that, during the session of the legislature in October, 1810, the trustees of the University of Vermont met at Montpelier and asked the legislature to appoint a committee "to advise with the corporation in relation of the interests of the University of Vermont, and to devise the best mode to promote the same"; that such a committee was appointed, resulting in the passing of an act, November 2, 1810, in amendment of the charter. By that act the filling of vacancies in the board of trustees was placed upon the legislature, the tenure of office was fixed, and the trustees were to be commissioned by the Governor of the state and sworn as was "by law required with regard to other state officers"; and it was made the duty of the Governor to issue a charter to the trustees, "confirming to them and their successors, to be chosen from time to time, according to the provisions of this act, all the rights and immunities belonging to the said Corporation of the University of Vermont, by the provisions of this act, or of that to which this is an addition." It was claimed before this Commission that the provisions of this act, requiring the trustees to be thus elected and sworn, show that the University of Vermont was a state institution.

It had then been about twenty years since the act of incorporation was passed, and no formal charter had been issued by the Governor, as therein directed. Hence the reason why the amendatory act directed a charter to be issued confirming to the trustees and their successors all rights and immunities belonging to the corporation by provisions of that act and by the act of incorporation. "A confirmation," says Lord Comyns, "gives nothing but the right to that which he to whom the confirmation is made had before." The provision requiring the trustees to be commissioned and sworn did not have the effect of making the corporation public. The legislature had the power to insert such a condition, as well as the one requiring reports concerning the funds of the university, etc., to the legislature for their consideration, but under the authorities cited above, the insertion of such conditions was not by any means a controlling element as to the character of the institution. No other alteration of the provisions of the charter, material to notice here, was there made. There was no surrender of the charter. The corporation was not founded afresh. The only change effected respecting the funds or the property of the corporation, related to the lands granted by the state for the use and benefit of the university, making the grant "forever" instead of "until the further order of the legislature," as under the amendment of 1802.

Moreover, in August, 1828, the corporation passed a resolution in part, that a proper application be made to the legislature for amendments to the charter so as to provide for an appointment by the legislature of "a board of visitors to attend the

annual examinations and report the state of the institution to the legislature"; and also so as to empower the board of trustees to fill all future vacancies occurring in that board; and that a committee be appointed to present a petition to the legislature for such purpose. The legislature of that year (presumably in compliance with an application so made), passed an act, section 1 of which provided that all vacancies in the board of trustees should be filled by that body, and that so much of the Act of 1810 as prescribed the number of trustees, the term of office, and the mode of election, should be thereby repealed. Section 3 of the Act of 1828 provided for the appointment annually of "three commissioners" by the Governor and Council, to be present at the annual examination of the students each year, for the purpose of inquiring into the regulations and by-laws, state of funds, and the general execution of the provisions of the charter; and to make report of their proceedings to the legislature. So much of the Act of 1810 as required a report to the legislature from the board of trustees was thereby repealed; and by an Act passed November 5, 1845, so much of section 3 of the Act of 1828 as provided for the appointment of a board of commissioners, was repealed. Thereafter the legislature had no power to fill vacancies in the board of trustees, and there was no provision in the charter for the appointment of commissioners to be present at any of the functions of the institution, nor was there any, requiring the trustees to make a report to the legislature, on request or otherwise,—all such matters were exclusively with the trustees, the self-perpetuating body.

We have already quoted from an address delivered before this commission by the President of the University of Vermont and State Agricultural College, as follows: "The University of Vermont has been from the beginning of its existence a state university. The facts of history are a full and sufficient demonstration of this proposition." In view of this statement it may not be considered as going afield if we mention some unequivocal acts showing that during the operative existence of the University of Vermont it was considered by the trustees as a private institution, and that it acted as such. All of its buildings were erected by private endowments or money raised through the efforts of the trustees by private subscription for such purpose, including one in 1824 to take the place of one destroyed by fire, and including two in 1825. In 1821, the affairs of the university becoming embarrassed in consequence of judgments against it which it could not pay, the faculty were authorized to suspend instruction at their own discretion, and the operation of the institution would have been suspended indefinitely had it not been for the timely encouragement and assistance of its friends among private individuals. It is a matter of history that during the War of 1812, large quantities of arms belonging to the United States were deposited in the university building without the consent of the corporation, and that in March, 1814, the commanding general applied to the corporation to rent the building for the use of the American army, intimating that if consent were not given, forcible possession would be taken of it; and thereupon a committee of the corporation entered into

an arrangement with the agents of the government whereby the rent was fixed at a certain sum per year, the building being thus occupied until the return of peace in 1815, when it was evacuated by the army. The records of the University of Vermont show that on March 23, 1814, a resolution was adopted stating that a committee, appointed at a previous meeting of the corporation, had leased to the United States the college edifice for the term of one year, for the rent and upon the conditions recited in the lease, and ratifying the acts of the committee in that behalf; further resolving that the treasurer adjust the claims of the corporation against the United States for the storage of the army therein, and receive the sum agreed upon as due therefor, and execute proper receipts for the same. The records further show that after such occupancy ceased, claim was made by the corporation for damages done to the college premises and property, and a committee was appointed by it to adjust the same with the United States government, and to receive compensation therefor to the use of the corporation, the matter being concluded in 1817. The corporate records clearly show that these transactions were between the United States on the one hand, and the Corporation of the University of Vermont on the other hand, and they do not show that the state of Vermont participated therein, nor that it in any way concerned itself therewith. All of the aforementioned events were within the period when the filling of vacancies in the board of trustees was with the legislature and reports were required from the trustees to that body. In 1840, the Corporation of the University of Vermont presented its petition to the legislature, praying for a *loan* (not a donation), tendering security by way of a mortgage on lands on which they proposed to erect buildings with a part of the loan asked for. On a yea and nay vote the petition was refused. If the corporation were public in character, here was the anomalous position of the state's trying to borrow money of itself and tendering to itself, as security therefor, a mortgage on real estate owned by itself.

Can any one imagine a series of acts by a university more consistent with what might be expected from a private corporation, and more inconsistent with what might be expected from such an institution of learning, public in character, with the sovereign state financially behind it?

In 1840, Rev. Dr. John Wheeler, then president of the University of Vermont, had a list in Burlington on which he was assessed a tax in March, 1841. On his refusal to pay the tax, his cow was taken by the collector of taxes and regularly sold in satisfaction thereof. A suit in trespass for taking the cow was brought by President Wheeler against the collector (Wheeler v. Lane, 15th of Vermont Reports, page 26.) Therein the plaintiff was represented by Lyman and Marsh, attorneys. By the charter of the University of Vermont, the persons of all officers, servants and students belonging to the university were exempted from taxation, and by the Act of 1802, amending the charter, "the persons, families, and estates of the president and professors, lying and being within the town of Burlington, to the value of one thousand dollars to each of said officers," were exempted from

taxation. The reported case shows the collector claimed that all exemptions in favor of college officers had been repealed, and that such repeal was within the power of the legislature because the University of Vermont was a public corporation. President Wheeler, through his attorneys, claimed that the exemption was a franchise to a private corporation, the University of Vermont, and, therefore, irrevocable. His brief presented says in its second point, "2. The corporation, created by the act of 1791—Sal. Comp. L. 581—and the several additional acts, is a private corporation, and, therefore, all legislative grants to it, whether of funds or franchises, are irrevocable," citing in support of this position the Dartmouth College case, the case of Allen against McKeen, and the case of the Trustees of Caledonia County Grammar School against Burt,—three cases already noticed herein.

Although the court found it unnecessary, for the decision of the case, to pass upon the question thus raised, the fact that the president of the university, in the course of this litigation, for the purpose of maintaining his right as an officer of that institution, unequivocally took the position that the university was a private corporation, is of particular significance, because this position of the president was in full accord with the acts of the corporation itself, mentioned above.

Nothing further need be said to show that even if a change in character be possible during the existence of a corporation, no such change took place as to the Corporation of the University of Vermont.

In 1864, November 22, an act to establish the Vermont Agricultural College was passed. By it, Justin S. Morrill and thirteen other men named, their associates and successors, were constituted a body corporate under that name, "the leading object of which shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to Agriculture and the mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." By it, the corporators were made the trustees, their terms of office fixed, the filling of vacancies to be by the legislature. The governor of the state and the president of the faculty were made *ex officio* members of the corporation. The trustees were given power to elect all officers of the corporation and to declare their duties and terms of office; to elect a president of the college, professors, instructors and other officers, and determine their duties, salaries, responsibilities, and terms of office. The corporation was authorized to make rules, orders, and by-laws, for the government of the college and for the regulation of their own body; to take and hold in fee simple or any less estate, by gift, grant, bequest, devise, or otherwise, any land, tenements, or other estate, real or personal. The board of trustees was given the power to determine the location of the college, and in their discretion to obtain by gift, grant, purchase, or other means, a tract of land not to exceed one hundred acres, to be used as an experimental farm, so as best to promote the objects of the institution; and one-tenth of all the moneys received by the state treasurer

from the sale of land scrip by virtue of the provisions of the Act of Congress (Morrill Act of 1862), mentioned therein, and of the laws of the state, could be appropriated toward the purchase of such site or farm; provided, the trustees should determine to purchase such farm; and provided further, that the college should first secure by valid subscription, or otherwise, the further sum of not less than one hundred thousand dollars, for the purpose of erecting suitable buildings thereon, providing libraries and apparatus, and defraying the necessary expenses of the college; and the corporation should cease to exist at a specified time (November 15, 1865), unless it had then obtained valid and solvent subscriptions to the amount of that sum, to be applied to the endowment or other uses of the college. When duly organized, located, and established, as and for the purposes specified in the act, the college was to receive each year the annual interest or income from the Federal fund.

"The clear rents and profits of all the estate" of which the corporation should be seized and possessed, were to be appropriated to the use of the college, and in event of dissolution of the corporation, the estate belonging to it was to revert and belong to the state, to be held and disposed of by it in the advancement of education in agriculture and the mechanic arts. The legislature in terms reserved the power to grant further powers to the corporation, or to alter, limit, annul, or restrain any of those vested by the act of incorporation, as should be found necessary to promote the best interests of the college, "and may appoint overseers or visitors of said college, with all necessary powers for the better aid, preservation and government thereof; and the said corporation shall make an annual report of its condition, financial and otherwise to the Legislature at the opening of its session."

From the foregoing review of the salient features of the charter it is apparent that this corporation was created solely and expressly to enable the state to have the benefit of the appropriation under the Morrill Act of 1862. By accepting the provisions of that act the state became the owner of the fund arising from the sale of its allotment of land scrip, and the interest thereon, in trust, however, for the purposes named in the act. The state could authorize the expenditure of only one-tenth of the fund itself, and that only for the purchase of a site or farm. Beyond this, only the interest received could be used. Except as to the said one-tenth, the capital of the fund is to remain forever undiminished, and if any portion thereof, or of the interest thereon, be diminished or lost, it must be replaced by the state.

By the act of incorporation the Vermont Agricultural College was created as an instrumentality of the state for the better and more efficient administration of the trust.

In the sense that "the first gift of the revenues is the foundation, and he who gives them is in law the founder," the state was the founder. The fact that by the charter the expenditure of said one-tenth of the principal fund towards the purchase of a site or farm, was with the proviso that the trustees should determine to procure such farm, and with the further proviso that the college should first secure, by sub-

scription or otherwise, the further sum of not less than one hundred thousand dollars for the purpose of erecting buildings thereon, etc., did not operate to make the foundation different. The act fairly contemplated that the trustees might not determine to procure such farm, in which event no authority was given for the expenditure of any part of the principal fund, and the second proviso would not become active. Nor did the provision in the charter that "This act shall be in operation until said corporation shall have procured valid and solvent subscriptions, to the amount of one hundred thousand dollars, to be applied to the endowment or other uses of said college; and said corporation shall cease to exist on the 15th day of November, 1865, unless the foregoing subscription shall have been obtained," make the foundation different. Thereby the act was in force and the corporation in existence for nearly a year, but it should cease at the specified time unless the thing should have been done,—a condition subsequent, not affecting the original foundation, but a contribution for the purpose of it.

All of the property seized and possessed by the corporation was to be held in trust for, and to be appropriated to, the use of the institution in such manner as should most effectually promote the declared objects thereof, and in event of the dissolution of the corporation, it was to revert and belong to the state, for the same purpose in effect that the funds from the general government are owned by the state. Yet this reversionary provision, except as to real estate, does not materially differ from the general doctrine pertaining to public or charitable corporations. "As to these," says the Supreme Court of the United States in *Latter-Day Saints against United States*, 136th of the United States Reports, 1, "the ancient and established rule prevails, namely: that when a corporation is dissolved, its personal property, like that of a man dying without heirs, ceases to be the subject of private ownership, and becomes subject to the disposal of the sovereign authority; whilst its real estate reverts or escheats to the grantor or donor, unless some other course of devolution has been directed by positive law, though still subject, * * * to the charitable use."

Under the terms of the charter, the visitatorial powers in the state are broad enough to give her, as at common law in the case of public eleemosynary corporations, the sole right to inspect, regulate, control, and direct the corporation, and its funds and franchises.

The charter also contains elements more particularly indicating that the corporation is private in character, and authorities are found supporting this view, yet on the whole the Commission is inclined to the opinion that this corporation is public, and it is so treated in the consideration of the University of Vermont and State Agricultural College, which follows.

In November, 1865, the University of Vermont and the Vermont Agricultural College consolidated in the formation of a new corporation by the name of the "University of Vermont and State Agricultural College," under an Act of the General Assembly, approved November 9, 1865, "for the purpose of carrying out

the objects contemplated in their respective charters," and as such to be and remain a body corporate forever, with power to hold and convey real and personal estate, to have a common seal, and all the rights and powers incident to corporations. The trustees of each of the constituent corporations, before a given day, were to elect nine of their number, who, with their successors, should thereafter constitute a part of the board of trustees, and likewise constitute a part of the board of trustees of the new corporation, and all the trustees so elected, together with the governor of the state and the president, *ex officio* members, were made to constitute the entire board of trustees of that corporation, who should have the entire management and control of its property and affairs, and in all things relating thereto, except in the elections to fill vacancies, act together jointly, as one entire board of trustees. It was made the duty of the said nine trustees of the University of Vermont to elect successors to fill any vacancy occurring among their number. The nine trustees of the said Agricultural College were to be divided into three classes, of three members each, the terms of office by classes being two, four, and six years, respectively, all vacancies therein, by expiration of the term or otherwise, to be filled by the legislature, the term of office to continue six years. The board of trustees of the consolidated corporation was vested with power to confer honors and degrees; to elect all officers, including president, secretary, treasurer, professors and instructors, and prescribe their duties, salaries, and terms of office; to make by-laws and regulations for the government of themselves and others connected with the institution, not inconsistent with the provisions of the consolidating act. By that Act the property of each of the constituent corporations became the property of the new corporation, and thus combined, constituted its entire property, to use, control, sell, or dispose of, subject to the payment of existing debts of the constituent corporations, and subject to any trust, duties, and obligations connected therewith; and the new corporation was given the same rights in respect to the college lands in this state, and to the rents, uses and benefits thereof, as the University of Vermont previously had.

The trustees of the new corporation were empowered to obtain by gift, grant, or otherwise, a tract of land, which, together with the land then owned by the University of Vermont, should amount to at least one hundred acres, to be used as an experimental farm; and in case said land should be procured, as aforesaid, a sum not exceeding one-tenth of the money received for the sale of the land scrip by the state treasurer, in pursuance of the Act of Congress authorizing the same, was to be paid to said board of trustees for the purposes aforesaid; with a proviso not here material. And whenever the new corporation should have been duly organized, there was to be appropriated and paid to its treasurer annually, for the purposes mentioned in that act, the interest or the income received from the fund created under and by virtue of said Act of Congress.

The consolidation statute was to take effect whenever the two constituent corporations should vote to accept the same, and to surrender and relinquish to the

corporation thereby created "all the property belonging to them, whether real or personal, and all the rents, profits and income therefrom arising, including said proceeds from the sale of said land scrip, for the purpose, and subject to all the rights, trusts and conditions as in this act provided." By it a copy of the record of the vote of acceptance by each of the constituent corporations was to be recorded in the office of the Secretary of State; "whereupon, by virtue of such votes, such property, rents, profits and income, shall become the property of the corporation hereby created, for the purposes, and subject to the rights, trusts and conditions aforesaid, and said property, and the property hereafter acquired by the corporation hereby created, shall be subject to all the conditions, immunities and exemptions now pertaining to the property now held by said University of Vermont"; and by it all provisions inconsistent therewith, contained in the act establishing the Vermont Agricultural College, were repealed.

All votes were taken and records made that were essential to the taking effect of the Act of consolidation, and to the vesting of the property, rents, profits, and income of the constituent corporations, in the new corporation, for the purposes, and subject to the rights, trusts, and conditions before named.

The new corporation was to make annual reports to the legislature of their condition, financial and otherwise, and make and distribute the reports required by the Act of Congress therein referred to; and the legislature reserved the right to appoint annually "a board of visitors, who may annually examine the affairs of said corporation."

The Act of consolidation further provides, in effect, that in case the new corporation shall be dissolved, the Supreme Court may order and decree that the income thereafter to be derived from the proceeds of the sale of said land scrip, together with such amount as may have been paid over by the state treasurer for the purpose of an experimental farm, shall revert to the Vermont Agricultural College, and the property and effects which belonged to the University of Vermont at the time of the union, shall revert to, and be the property of, that institution; and any property or funds thereafter acquired by the new corporation, shall be awarded and distributed to the constituent corporations in such manner as the court shall deem just and equitable, having reference to the manner the same was acquired, and to any specific trusts, or expressed intention of any donors, then made; and for such and all other purposes the constituent corporations shall be deemed and treated as having continued in life.

As before seen, the corporation of the Vermont Agricultural College by its charter would cease to exist on November 15, 1865, unless it had then procured valid and solvent subscriptions to the amount of \$100,000, to be applied to the endowment or other uses of the college. On November 9, 1865, six days before the expiration of the time thus allowed, the consolidation Act was passed. Notwithstanding that corporation had made great effort to comply with the provision of its charter in this respect, they secured by pledge only \$17,000. It hardly seems necessary to

mention in this connection the fact that no part of the principal of the Federal fund, nor of the income thereof, ever went into the hands of that institution—it remained with the treasurer of the State of Vermont. A report of the trustees of the Vermont Agricultural College under date of October 19, 1865, to the governor of the state, recommending consolidation with the University of Vermont, contains a statement showing the property of the University of Vermont at that time, “as represented by its Treasurer, and by others whose judgment may be relied upon,” to be in the aggregate \$167,500, with an indebtedness of \$16,183, leaving \$151,317, of which about \$13,000 was held in trust for purposes of specific instruction.

Considering the \$17,000 pledged by subscription to the Vermont Agricultural College as available under the consolidation, the property owned by the constituent corporations, and which under the Act of consolidation became the property of the new corporation, was as follows: the University of Vermont (deducting for indebtedness), \$151,317; the Vermont Agricultural College, \$17,000, with the provision that it should receive the benefit of the Federal fund in case of compliance with the conditions of its charter in that respect. Whether there was a likelihood of such a compliance, it is unnecessary to consider; for treating that corporation as public in character (which we have before indicated would be done), it was but the State of Vermont acting through its instrumentality—its agent expressly created, as before seen—to enable the state to have the benefit of the Federal appropriation. Such being the character and the purpose of that corporation, the consolidation was of two corporations, namely, the University of Vermont, a private institution, and the Vermont Agricultural College, a public institution and the instrumentality of the state. This position is emphasized by the fact that by the Act of consolidation, instead of the new corporation being left to take the benefit of the Federal funds through the constituent corporation, the Vermont Agricultural College, provisions were inserted whereby the new corporation should receive the benefit of those funds by virtue of its own charter, from the state direct, and provisions contained in the charter of the Vermont Agricultural College inconsistent with the Act of consolidation, were by the latter expressly repealed.

Such being in law the character of the two constituent corporations and the status of their respective properties, the consolidation Act was to enable the University of Vermont and the State of Vermont to carry out the arrangement made between them by organizing a new corporation, the foundation of which should consist of the combined properties of the University of Vermont and of the State of Vermont, as represented by its instrumentality, the Vermont Agricultural College.

This brings the matter well within the principle laid down by the Supreme Court of the United States in the case of *The Bank of the United States against The Planters' Bank of Georgia*, (in 9th of Wheaton, page 907,) before noticed. That the doctrine there enunciated may be clearly in mind, we venture to quote again the following from the opinion of Chief Justice Marshall:

"It is, we think, a sound principle, that when a government becomes a partner in any trading company, it divests itself, so far as concerns the transactions of that company, of its sovereign character, and takes that of a private citizen. Instead of communicating to the company its privileges and its prerogatives, it descends to a level with those with whom it associates itself, and takes the character which belongs to its associates, and to the business which is to be transacted." Also from the case of Regents of the University of Maryland against Williams, (in 9 of Gill and Johnson, page 365, and in 31 of American Decisions, page 72,): "And all the authorities agree that colleges and academies established for the promotion of learning and piety, and endowed with property by public and private donations, are, in a legal sense, equally with hospitals for the relief of the poor, sick, etc., considered and treated as private eleemosynary corporations."

It will be recalled that the same principle was applied in the case of Downing against the Indiana State Board of Agriculture, held by the highest court of Indiana to be in a sense an educational institution; and that it was recognized as sound in the case of Thomas against the Industrial University, an educational institution, though not there applicable,—to both of which cases attention was called in our discussion of the University of Vermont.

Applying this law, there can be no doubt of the character of the foundation of the University of Vermont and State Agricultural College. Notwithstanding it was mixed, in that it came in part from a private source, the University of Vermont, and in part from a public source, the state, therein the state takes the character which belongs to its private associate, the University of Vermont. The University of Vermont and State Agricultural College, then, as respects its foundation, is a private corporation.

This seems to be as contemplated by the consolidation Act, for therein it is provided, regarding the property, rents, profits, and income derived by the new corporation from the constituent corporations, and the property thereafter acquired by it, that it "shall be subject to all the conditions, immunities and exemptions now pertaining to the property now held by said University of Vermont"—thus putting all the property of the new institution, whether derived from the public, or from the private, constituent corporation, or from future acquisitions, in the same position as to conditions, immunities, and exemptions, as the property held by the private constituent corporation, rather than as the property held by the public constituent corporation.

In addition to this, the disposition of the property to be made in case of a dissolution of the new corporation, is indicative in the same direction—it shows that of the property at the time of the consolidation, only the trust funds received by the state from the general government revert to the Vermont Agricultural College, in effect, to the state.

The provision in the charter, that "the Legislature may annually appoint a board of visitors, who may annually examine the affairs of said corporation," amounts to

no more than giving the right of inspection, which in law is very different from, and falls far short of, visitatorial powers at common law. This is shown clearly by the case of Guthrie against Harkness, found in 199th of United States Reports, page 148. There, Harkness, the defendant in error, was the owner of a part of the capital stock of a certain national bank. As such shareholder he applied for leave to inspect the books, accounts, and loans of the bank, which was refused him. He sought such inspection for the purpose of ascertaining the true financial condition of the bank, and also for the purpose of ascertaining the value of his stock in said bank, and also for the purpose of ascertaining whether the business affairs of the bank had been conducted according to law. It was argued on the part of the directors of the bank that such right of inspection was cut off by a certain section of the United States statute, providing that "no association shall be subject to any visitatorial powers other than such as are authorized by this title, or are vested in the courts of justice." The Supreme Court of the United States said there could be no question that the decisive weight of American authority recognizes the common-law right of the shareholder, for proper purposes and under reasonable regulations as to place and time, to inspect the books of the corporation of which he is a member, quoting from a work on private corporations, which says, "However, in the United States the prevailing doctrine appears to be that the individual shareholders in a corporation have the same right as the members of an ordinary partnership to examine their company's books, although they have no power to interfere with the company's management." After defining and discussing visitation in law, the court said:

"In no case or authority that we have been able to find has there been a definition of this right which would include the private right of the shareholder to have an examination of the business in which he is interested, and the right of discovery of the methods and means by which the agents of the corporation are conducting its affairs."

It was held that the shareholder was wrongfully denied an inspection of the books and accounts of the bank.

It cannot well be said that in law this board of visitors has other powers than that stated in the provision quoted from the Act of consolidation; for the legal maxim here applicable is, that "the express mention of one thing implies the exclusion of another."

By the Act of consolidation, visitatorial powers are vested in the trustees: they are given "the entire management and control of its property and affairs."

Is that Act a grant of political power? Other than the governor, who is made *ex officio* trustee, the trustees of the new corporation are not political officers vested with any portion of political power, to be exercised for purposes connected with the public good in the administration of civil government, nor do they perform duties which flow from, or in any way pertain to, the sovereign authority. Neither their services, nor the services of the professors, are paid for by the state. The

property of the corporation is not public property. So far as it was given by the state, it cannot be resumed, except as such right may be reserved in the charter. The state alone is not interested in the transactions of the institution. And the corporation is given a capacity to take, hold, and convey real and personal estate for objects not connected with the government. Professor John F. Dillon (in his work on Municipal Corporations, section 54,) says, "Corporations are public only when, in the language of Chief Justice Marshall, '*the whole interests* and franchises are the exclusive property and domain of the government itself.'"

It is said, however, that nine of the trustees are elected by the joint assembly; and that since the governor and the president are *ex officio* trustees, (the latter being elected by the board,) the control of the institution is always with the state. Granting that, considering numbers alone, such a conclusion may be reached, no argument is needed to convince any unprejudiced mind that in practical operation the control of the institution is not with the state. In the opinion of the Commission, the fact that under the Act of consolidation this institution is given the power to take charge of, lease, rent, and appropriate to its use and benefit, the college lands, granted under the authority of the state for specified purposes, and the fact that the institution is given, by the state, the benefit of funds owned and held by the state, under appropriations from the general government, in trust for the purposes named in the Act of appropriation, for the safeguarding of which the state is responsible, constitute a good and sufficient reason for the method adopted in making up the board of trustees in the first instance, and in filling subsequent vacancies therein, and for requiring annual reports from the corporation of their condition to the legislature, and for the distribution of reports as required by the Act of Congress, and for the reservation of power to appoint "a board of visitors," having the limited power before discussed.

We call attention to a decision much in point, by the highest court of the State of Illinois, (in Board of Education against Greenebaum and Sons, found in 39 of Illinois Reports, page 609,) involving the character of an institution of learning in that state. There the legislature passed an Act, the preamble of which recites a compact between the state and the United States, by which a certain percentage of the proceeds of the sale of public lands lying in the state, were set apart to the state to be appropriated by the legislature for the encouragement of learning, of which one-sixth was to be bestowed exclusively upon the college or university. It then speaks more particularly regarding the amount of that fund and the interest on it up to a certain date; and for the purpose of carrying out the intention of Congress and the understanding of the people, the legislature passed the Act establishing the "Normal University," the governor of the state being required to issue stock to the amount named, (a part of the interest of this fund,) payable to the board of education for the use of the Normal University. From this legislation the board of education insisted that the property of the Normal University was the property of the state, in which the corporation had no interest; that it was

created for certain public purposes in which the whole state had an interest, and certain rights accrued to each county in the state; that the governor, by and with the advice and consent of the senate, appointed the trustees who composed the corporation; that the superintendent of public instruction was *ex officio* a member of the board and secretary thereof, whose duty it was to report to the legislature the condition and expenditures of the university; that the corporation was a mere trustee or agent of the state to carry out the wishes and intention of the legislature and its property could only be used for corporate purposes. The Normal University was held to be a private corporation; and regarding the method of appointing trustees and the requirement for reports to the legislature, the court said:

"The reason that the legislature reserved the appointment of the trustees was, doubtless, because it had placed in their keeping a fund of which the state was but a trustee, and merely responsible for its proper application, and over it a special custodian was placed, in the person of the superintendent of public instruction, whose duty it was to make reports to the legislature of the condition and expenditures of the university, and as some equivalent for this deposit of trust money, the state claimed and receives the gratuitous instruction of two pupils from each county, and for as many more as the whole number of representatives in the legislature might amount to, in the several representative districts. These pupils, it is understood, defray all their expenses, except for tuition, and are in no sense charity scholars, fed and provided at the expense of the state."

By No. 105, Acts of 1892, it was enacted: "No trustee, director or supervisor of any state institution, except the University of Vermont and State Agricultural College, shall be employed in any capacity in such institution; and in case any such officer shall accept employment in a state institution of which he is a trustee, director or supervisor, his office shall be vacant." And it is claimed by those representing the University of Vermont and State Agricultural College before this Commission, that thereby the legislature in effect declared that corporation to be a state institution. But such a legislative declaration (if it can properly be so characterized) can have no force in determining the character of the institution. On February 28, 1867, the General Assembly of the State of Illinois passed an Act declaring "The State Normal University," an institution in that state, then ten years in existence, to be a state institution, and the property in the hands and standing in the name of the Board of Education of the State of Illinois, to be the property of, and by said board held in trust for, the state.

In the case of The Board of Education of the State of Illinois against Bakewell, found in Vol. 122 of Illinois Reports, page 339, the court of last resort in that state said: "What appellant indeed was, in the respect of being a state institution or a private corporation, depended upon what the charter of its creation made it to be, and not what the legislature may have, at some time afterward, considered it to be. * * * The declaration of the Act of 1867, that the State Normal University was a state institution, and that the property of appellant was the property of the

State of Illinois, stood a mere harmless declaration upon the statute book, having no effect."

In 1886 the case of Willard against Pike (found in 59 of Vermont Reports, page 202,) came before the Supreme Court of this state. The judges who sat in the case were Homer E. Royce, Chief Judge, H. Henry Powers, Wheelock G. Veazey, Russell S. Taft, John W. Rowell, and William H. Walker, Assistant Judges. The opinion in the case was written by Judge Veazey. There the question was as to the validity of a tax assessed in St. Johnsbury, against the plaintiff. It appeared that the St. Johnsbury Academy owned a large boarding house, the rent or income of which was used for general expenses of the academy; that it owned a "club house," partly rented and partly occupied by a club of scholars; that it owned also a house on Main Street known as "Warner House," which had brought the academy no rent, but was kept as a part of the academy property. The county court ruled that the Warner House, the club house, and the boarding house were properly omitted from the list, and that they were exempt, as matter of law, from taxation. The plaintiff contended that this was error, because the St. Johnsbury Academy was a private, and not a public, corporation. The statute provided that "Real or personal estate granted, sequestered, or used for public, pious or charitable uses; * * * and lands owned or leased by colleges, academies, or other public schools," should be exempt from taxation. Counsel for the plaintiff made the point in their brief presented to the Supreme Court, that the academy, boarding house, club house, etc., were not exempt from taxation, because the corporation was purely a private one, and in no sense public. The question being thus presented in argument, the court said:

"We do not think the words 'or other public schools' were intended to be restrictive of what precedes. Colleges and academies are, in popular understanding, public institutions, although not public in the sense as applied to our common schools, which are supported by public taxation and are free to the public without charge to the pupils.

"The word 'public' in this statute, we hold, is not to be construed in the latter sense, but in the sense in which academies are regarded as public institutions. It is not restrictive of what precedes, but is explained thereby; that is, public in the sense in which colleges and academies are public.

"No colleges or academies in this state are yet free to the public like our public schools; neither are they public corporations; therefore if the legislature intended by the phrase, 'lands owned or leased by colleges, academies, or other public schools,' only such colleges and academies as were free to the public without charge for tuition, or as were purely and technically public corporations like municipalities, the legislation was simply idle * * *. When a college or academy is incorporated wholly for the purposes of general education, and is so operated without any capital stock or purpose of profit, and tuition is charged only for its maintenance, then it is devoted to public use."

It is clear that the court in that case draws a distinction between the property of a private corporation being devoted to a public use, and the corporation itself being public. No one will seriously question but that the property of the University of Vermont and State Agricultural College is to the extent mentioned in this opinion, devoted to a public use, but none the less the corporation remains private. This distinction is the same as appears between the holding in the Dartmouth College case, as first decided by the Supreme Court of New Hampshire, and as subsequently decided by the Supreme Court of the United States, the former holding that the use of the property being public, the corporation was public; the latter holding that the use, although public, was not determinative of the character of the corporation; and if a corporation is public, it is so in the strict legal sense, and not merely in the popular sense.

The case of *Scott against St. Johnsbury Academy and Trustees*, (decided in 1912, and found in the 86th of Vermont Reports, page 172,) was an action brought to collect taxes assessed on certain real estate belonging to the St. Johnsbury Academy. Some of the property taxed was the same as that involved in the case of *Willard against Pike*, above noticed. Regarding it, the court said: "We cannot hold this property to be taxable, without rejecting the conclusions of that case,—which we are unwilling to do."

Without pursuing the discussion of the question further, the Commission is clearly of the opinion that the University of Vermont and State Agricultural College is a private, not a public, corporation, and it so determines.

2. USE OF FEDERAL APPROPRIATIONS

Some question has arisen whether disbursement of the annual appropriations from the general government received by the University of Vermont and State Agricultural College, has been in accordance with the rights, duties, and obligations of that institution, and it is one of the matters presented to this Commission. The answer thereto depends upon whether the expenditures have been only for the purposes contemplated in the trusts, and have conformed to the provisions of the trusts in their true spirit, intent, and meaning. This question is one of great importance to the people of the State of Vermont, and it requires consideration of the Federal Acts of appropriation and of the charter under which the institution was organized and is acting, in the light of such aids as can reasonably be said to have a bearing thereon.

Under the Act of Congress approved July 2, 1862, known as the "Morrill Act of 1862," this state received as proceeds of the sale of land scrip, \$135,500 to be applied to the uses and purposes prescribed in that Act, "and for no other use or purpose whatsoever." All expense incurred in the management and disbursement of the moneys so received is to be paid by the state out of its treasury, so that the whole

sum, without diminution, shall be applied to the purposes named therein. These moneys were to be invested in stocks yielding not less than five per centum upon the par value of the stocks, and the moneys so invested constitute a perpetual fund, the capital of which shall remain forever undiminished, except, if authorized by the state, one-tenth thereof could be expended for the purchase of land for a site or experimental farm. No portion of this fund nor the interest thereon, could be applied to the purchase, erection, preservation, or repair of any building or buildings. The interest "shall be inviolably appropriated, by each state which may take and claim the benefit of this Act, to the endowment, support, and maintenance of, at least, one college, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

In plain language, so far as this Federal Act is concerned, the "leading object" of the college shall be to teach such branches of learning as are related to agriculture and the mechanic arts; and the fact that these branches are to be taught "in such manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life," seems to make it quite clear that discretionary power was vested in each state, ever keeping within the confines of the Act, to lay down a rule of action, guiding and directing the expenditure of the moneys by the college receiving it, in a manner intended to promote the liberal and practical education of the industrial classes of the particular state.

The charter of the Vermont Agricultural College states the "leading object" of the institution in terms like those of the Federal Act of appropriation. The charter of the University of Vermont and State Agricultural College provides that there shall at all times be maintained in the institution thereby created, "such instruction, in the various branches of learning, as is contemplated in the several charters of each of the institutions hereby united; and more particularly including a four years' course of studies, similar to such as are generally taught in other colleges, and not inferior to that recently taught in said University of Vermont, and in addition to that which is usually taught in other colleges, the instruction in this institution shall include such enlarged facilities, and extended scope and variety in the study of those branches which relate to military tactics, agriculture and the mechanic arts, as shall render the whole instruction in conformity with said act of Congress, as well as with the several charters aforesaid." Thus the purpose of the University of Vermont, as declared in its charter, and the purpose of the Vermont Agricultural College, as declared in its charter, are the coordinating purposes of the University of Vermont and State Agricultural College, as declared in its charter. It is only the coordinate relating to agriculture and the mechanic arts that falls particularly

within the contemplated field of this Commission. In this connection we may notice with profit an address delivered by W. O. Thompson, president of Ohio State University, before the Seventeenth Annual Convention of the Association of American Agricultural Colleges and Experiment Stations, on "The Mission of the Land-Grant Colleges." This address was sufficiently accurate and of such importance that the United States Department of Agriculture reprinted it and gave it circulation as Bulletin 142. Therein discussing the "Morrill Act of 1862" and undertaking to interpret it in the light of the debate in Congress which led to its enactment, President Thompson said:

"Second. This statute was intended to introduce new lines of education. It was intended to provide what was not already provided. It was to meet the need that had existed but hitherto had been unrecognized. This statute recognizes the industrial classes in the field of agriculture and mechanic arts as substantially unprovided for beyond the opportunities in the public schools. It is worthy of note, however, that at the date of this statute the public school system was a long way from its present efficiency. It was generally conceded that the wealthy classes and the favored classes were able to take care of themselves. The older institutions were somewhat aristocratic in their original conception. They appealed largely to the favored classes and by easy processes neglected the large masses of the people. This statute was a distinct effort to extend a form of higher education to a class of people hitherto unreachd.

* * *

"Fourth. There can be no doubt that this statute means exactly what it says, that the leading object of these colleges shall be agriculture and the mechanic arts. Precedence is always to be given to these subjects. My understanding of this is that they were to be chiefly schools of applied science. The existing conditions of the country demand, of course, that foundations shall be laid with this end in view. The sciences related to agriculture and the sciences related to mechanic arts are to be the chief subjects of instruction and investigation. Underlying the whole conception of this statute and running through the entire argument that was made for it was the doctrine that the pursuits of agriculture and mechanic arts demanded specific training in order to bring about the highest development of efficiency in the industrial classes and the promotion of these great interests in the country. The statute does not lose sight of the importance of other forms of industry or of labor, but it keeps in full view the importance of these fundamental industries. It emphasizes in these colleges, as it is emphasized nowhere else, the importance of this type of education.

"Fifth. In my judgment a subordinate place is given in this statute to military tactics. This does not mean that the subject is to be treated unfairly or with little respect; but that the organization of these institutions is primarily in the interest of industry and not of war. They are a preparation for a peaceful life rather than

for strife. I understand it, therefore, to be the duty or the mission, if we prefer that expression, of these colleges to keep faith with the Government in both particulars. We are primarily educational institutions of the industrial sort rather than of a military type. We recognize to the fullest extent the importance of military tactics, but the precedence of these institutions is not given to military tactics. My own interpretation of the statute is that general science, classical studies, and military tactics are on substantially the same level. They occupy a position of honor. No discredit may be attached to any of them. They are rightfully in these schools, but they may not take precedence over the others."

It is equally instructive to notice an address delivered by W. J. Kerr, president of the Agricultural College of Utah, before the American Agricultural Colleges and Experiment Stations, the proceedings of which were printed by the United States Department of Agriculture and issued as Bulletin No. 164. Therein President Kerr said:

"At the time of the passage of the Morrill land-grant act in 1862 the accepted type of higher education was the four years' course of the old classical college. The conventional courses in classics, literature, and philosophy were the leading features of college work. The State universities were expected to be, as it was declared in the organic act that they should be, *literary institutions*. They were confined for the most part to the traditional courses of the time, and differed little, if at all, from the old classical institutions.

"During the years immediately preceding the passage of this act, extending over a period of about two decades, great progress was made in the development of the country, and there was an increasing consequent demand for trained men for responsible positions in the different industries. As stated by President Dabney, 'great railroads were to be built, but with the exception of the Military Academy at West Point, there was no school to train the engineers to survey them. Mines of coal and iron were to be opened, but miners had to be imported to open them. Factories needed to be built, but engineers had to be brought over from England or Holland to build them. Ironworks and many other important industries were calling loudly for chemists, who had to be obtained from Germany or France.' Moreover, the impairment of the natural productiveness of the soil, the depreciation of farm crops, and the resultant general deterioration of farm properties were earnestly calling for the remedial applications of scientific methods in agriculture. It became evident, therefore, that the old college was not meeting the new demands. A new type of education was required, an education bearing more directly upon the arts of life.

"It was to meet these particular needs of the people in the development of a new and rapidly growing country that the Morrill Act of 1862 was passed. Under this act nearly 11,000,000 acres of lands were granted to the different States for the endowment of colleges, the leading objects of which should be 'to promote the *liberal* and *practical* education of the industrial classes in the several pursuits and pro-

fessions of life.' As explained by Senator Morrill, 'the fundamental idea was to offer an opportunity in every State for a liberal and larger education to larger numbers, not merely to those destined to sedentary professions, but to those much needing higher instruction for the world's business, for the industrial pursuits and professions of life.' It is clearly evident from the provisions of the Morrill Act, and from all the speeches delivered in Congress relating thereto, that the object was to provide for a new type of institutions, occupying a distinctive field as scientific, technical colleges, adapted to the needs of the great laboring classes in the development of the industries and resources of the country. But it is also to be observed that a *liberal* as well as a *technical* education was contemplated—an education for skill and efficiency, but for culture as well. The purpose, therefore, in the establishment of the land-grant colleges was to provide an education, to quote again from Senator Morrill, which 'should prove useful in building up a great nation—great in its resources of wealth and power, but greatest of all in the aggregate of its intelligence and virtue.' "

It seems to the Commission that the addresses of President Thompson and President Kerr, from which the above quotations are made, show much good sense and voice the right spirit respecting the Morrill Act of 1862, and the manner (wholesome indeed) in which the trust should be administered by institutions receiving the benefit of the funds arising under it.

It appears that the interest received annually by the University of Vermont and State Agricultural College under the Federal Grant of 1862, is \$8,130. It further appears that of this money, \$3,260 is used in the support of the university treasurer's office, and that the remaining \$4,870 is used under the policy of the trustees for the benefit of the general educational development of the University.

Under its charter the University of Vermont and State Agricultural College has coordinate leading objects, one being (quoting from the charter of the Vermont Agricultural College) "to teach such branches of learning as are related to Agriculture and the Mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." With no more definiteness in either the Federal Act of appropriation or the charter of the University of Vermont and State Agricultural College as to the manner of administering this trust, there is a chance for much liberty of action. One of the leading objects of the institution being as stated above, the Commission can not say that the use made of the interest received from the grant named was not in substantial compliance with the provisions of the trust.

By an Act of Congress, passed in 1887, there was established under direction of the college or colleges or agricultural departments of colleges in each state or territory, established under the "Morrill Act of 1862," a department to be known and designated as an "Agricultural Experiment Station." The object and duty of experiment stations so established, is to conduct original researches or verify experiments on the subjects pertaining to agriculture, named in the Act, "and such

other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States or Territories."

This Act carried to each state an appropriation of \$15,000 per annum. In 1906 an Act was passed for the further endowment of such Agricultural Experiment Stations, carrying an appropriation and an annual increase of the amount thereof for five years, with the annual amount thereafter to be paid to each state and territory of \$30,000.

The University of Vermont and State Agricultural College receives under this Act of 1906, \$30,000 annually for the purposes specified therein.

The Commission believes as the presumption is, nothing appearing to the contrary, that this money has been and is being expended by the institution in accordance with the contemplation of the Acts of appropriation.

By an Act of Congress approved May 8, 1914, an appropriation was made of \$10,000 to be paid annually to each state which shall assent to the provisions of that Act, and also an additional sum for each fiscal year following that in which the foregoing appropriation first becomes available—all as, and upon the conditions, in said Act specified—for cooperative agricultural extension work, which "shall consist of the giving of instruction and practical demonstration in agriculture and home economics to persons not attending or resident in said colleges in the several communities, and imparting to such persons information on said subjects through field demonstrations, publications, and otherwise; and this work shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and the State agricultural college or colleges receiving the benefits of this Act." The Act further provides "that no payment out of the additional appropriations herein provided shall be made in any year to any State until an equal sum has been appropriated for that year by the legislature of such State, or provided by State, county, college, local authority, or individual contributions from within the State, for the maintenance of the cooperative agricultural extension work provided for in this Act."

The legislature of 1912 passed an Act of appropriation (No. 84) to meet such a contingency, but whether it amply meets the conditions of this Federal Act, we do not pretend to say.

There is no danger of overvaluing such extension work to the agricultural industry of the state. Reference to this class of work is made in our discussion of vocational education.

By Act of Congress, approved August 30, 1890, known as the "Morrill Act of 1890," it was provided that there should be appropriated to be paid to each state and territory, "for the more complete endowment and maintenance of colleges for the benefit of agriculture and the mechanic arts" then established, or which might thereafter be established, in accordance with the Act of Congress approved July 2, 1862, the sum of \$15,000 for the year ending June 30, 1890, and

an annual increase of the amount of such appropriation thereafter for ten years by an additional sum of \$1,000 over the preceding year, and the sum of \$25,000 annually thereafter, "to be applied only to instruction in agriculture, the mechanic arts, the English language and the various branches of mathematical, physical, natural and economic science, with special reference to their applications in the industries of life, and to the facilities for such instruction." And by Act of Congress approved March 4, 1907, known as the "Nelson Act," there was annually appropriated, to each state and territory, "for the more complete endowment and maintenance of agricultural colleges" then established, or which might thereafter be established, in accordance with the Act of Congress approved July 2, 1862, and Act of Congress approved August 30, 1890, the sum of \$5,000 in addition to the sums named in the said act for the fiscal year ending June 30, 1908, and an annual increase of the amount of said appropriation thereafter for four years by an additional sum of \$5,000 over the preceding year, and the annual sum of \$50,000 to be paid thereafter to each state and territory, "to be applied only for the purposes of the agricultural colleges as defined and limited in the Act of Congress approved July second, eighteen hundred and sixty-two, and the Act of Congress approved August thirtieth, eighteen hundred and ninety, * * * and the expenditure of the said money shall be governed in all respects by the provisions of said Act of Congress approved July second, eighteen hundred and sixty-two, and the said Act of Congress approved August thirtieth, eighteen hundred and ninety: Provided, That said colleges may use a portion of this money for providing courses for the special preparation of instructors for teaching the elements of agriculture and the mechanic arts."

The Morrill Act of 1890 and the "Nelson Act" (1907) explicitly state that the appropriations thereunder (constituting the \$50,000), shall "be applied only to instruction in agriculture, the mechanic arts, the English language and the various branches of mathematical, physical, natural and economic science, with special reference to their applications in the industries of life, and to the facilities for such instruction." Under this provision, simply applying the money to instruction in the several branches named would hardly seem to meet the requirement. It must be applied to instruction in those branches, how? "*With special reference to their applications in the industries of life, and to the facilities for such instruction.*" While the italics are ours, the word "special," as used in this phrase, shows that intended emphasis is placed upon this part of the requirement.

In one state mining may be the predominating industry, in another, the manufacturing of different commercial products, in another agriculture, as in Vermont. The intention of Congress was to specify particularly the different branches to which this fund should be applied, at the same time requiring the application to be made to those branches with special reference to their applications in the industries of life, in the several states, respectively, thereby giving each state the most practical benefit in the line of its greatest industries. That this is in accordance with the true construction as recognized by the United States Department of

Agriculture, seems manifest from Bulletins Nos. 142 and 164, issued by that Department and to which reference has already been made in this report: thus it was said by President Thompson in his address above noticed, (in Bulletin No. 142, page 92), referring to the provision of the Morrill Act of 1890, specifying the branches of instruction to which the funds of that appropriation could be applied and the required manner of application, that the debate in Congress leading up to this provision made clear the fact that the United States intended the money to be applied as there set forth; and that there was manifestly a feeling that some of the land-grant colleges had not kept strictly within the limits of the Act of 1862. It was said by President Kerr in his address, to which attention has been called (in Bulletin No. 164, page 123), that "In the land-grant colleges special emphasis should be placed upon the applications of science. Scientific investigations should be encouraged, but with the view of their practical value rather than for the purpose merely of extending the borders of knowledge. These colleges are primarily schools of technology, in which agriculture, the mechanic arts, domestic economy, and commerce may be regarded as distinctive features, the extent to which each institution should develop courses along these different lines varying with the conditions in the several states." He further said, "The work of the college should be that which relates most directly to the development of the resources and industries of each State, such, for example, as the irrigation enterprises so important in the reclamation of the arid and semi-arid regions, or certain manufacturing interests in other sections of the country."

And John Hamilton of the Office of Experiment Stations, in a paper entitled "The Open Door for the Land-grant College—The Farmers," also printed in Bulletin No. 164, page 126, issued by the United States Department of Agriculture, said:

"The supplemental Morrill bill of 1890 directs that the funds received under its provisions shall 'be applied *only* to instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural, and economic science, *with special reference to their applications in the industries of life*, and to the facilities for such instruction.'

"This act not only cuts out all language studies except English, but it also emphasizes the important fact that such mathematical, physical, natural, and economic science studies as are taught shall be taught, not after the old traditional manner, but in an entirely new way, with 'special reference to their applications to the *industries*.' What industries?

"The title of the bill indicates the 'industries' intended to be included. It declares the purpose to be "to apply a portion of the proceeds of the public lands to the more complete endowment of the colleges *for the benefit of agriculture and the mechanic arts*.' It does not say 'and for the other industries and professions in life,' but stops with the two great industries that were to be the leading objects of education, as indicated in the act of 1862.

"This act of 1890, coming as it does twenty-eight years after the founding of the land-grant colleges, is in the nature of a definition or declaration of purpose of the act to which it is a supplement. Some of the colleges had used the funds of the original grant to teach mathematics, physical, natural, and economic science, together with language studies, in a way that directed men into professional life, or at least that did not lead them into industrial pursuits. This act of 1890 distinctly prohibits such use of its funds, and by inference applies the same restriction to the original act, at least until the two leading industries—'agriculture' and the 'mechanic arts'—have been fully provided for.

"But why refer to this that ought to be, and doubtless is, familiar to every land-grant college officer? Simply by way of reminder of the fact that a 'door', wide and open to agriculture, was provided for by both of these national laws, and was directed to be swung in the front portal of every institution that accepted the grants which these two acts of Congress bestowed.

* * *

"However much they (land-grant colleges) may have done in the past or may in the future do for the aid and elevation of men in their several pursuits and professions in life, they have signally failed of the main purpose of their creation if they have neglected to do for farming people not all that farming people need but all that modern knowledge in agricultural science has made it possible for them to do."

Under date of November 26, 1900, a formal order regarding the classification of subjects under the various headings to be included in the reports of treasurers of colleges of agriculture and mechanic arts under the Morrill Act of 1890, and the Nelson Act of 1907, was issued by the Department at Washington, and the classification in that circular is exactly like that in a pamphlet of rulings and instructions relative to those two Acts, approved by the United States Bureau of Education November 2, 1911. Sections 7, 8, and 9 of that pamphlet are as follows:

7. No part of the funds received under the provisions of the acts of 1890 and 1907 may be used for any form of extension work, and all instruction must be given at the institutions receiving these funds, except that a reasonable portion of the funds provided by the act of 1907 may be used for the instruction of teachers in agriculture, mechanic arts, and domestic science at summer schools, teachers' institutes, and by correspondence, and in supervising and directing work in these subjects in high schools.

8. All or a part of the funds provided by the act of March 4, 1907, may be used "for providing courses for the special preparation of instructors for teaching the elements of agriculture and mechanic arts." It is held that this language authorizes expenditures for instruction in the history of agriculture and industrial education, in methods of teaching agriculture, mechanic arts, and home economics, and also for special aid and supervision given to teachers actively engaged in teaching

agriculture, mechanic arts, and home economics in public schools. It does not authorize expenditures for general courses in pedagogy, psychology, history of education, and methods of teaching.

9. In order that greater uniformity in the reports of treasurers may be obtained in the future, the following classification of subjects that may be included under the several schedules has been prepared, such classification to be adhered to by the treasurers of the various institutions in the preparation of their annual reports:

Schedule A.—Instruction in agriculture.

- | | |
|----------------------|------------------------|
| 1. Agriculture. | 6. Dairying. |
| 2. Horticulture. | 7. Veterinary science. |
| 3. Forestry. | 8. Poultry industry. |
| 4. Agronomy. | 9. Apiculture. |
| 5. Animal husbandry. | |

Schedule B.—Instruction in mechanic arts.

- | | |
|------------------------------|-------------------------|
| 1. Mechanical engineering. | 10. Architecture. |
| 2. Civil engineering. | 11. Machine design. |
| 3. Electrical engineering. | 12. Mechanical drawing. |
| 4. Irrigation engineering. | 13. Ceramics. |
| 5. Mining engineering. | 14. Stenography. |
| 6. Marine engineering. | 15. Typewriting. |
| 7. Railway engineering. | 16. Telegraphy. |
| 8. Experimental engineering. | 17. Printing. |
| 9. Textile industry. | 18. Shopwork. |

Schedule C.—Instruction in English language.

- | | |
|------------------------|--------------|
| 1. English language. | 4. Rhetoric. |
| 2. English literature. | 5. Oratory. |
| 3. Composition. | |

Schedule D.—Instruction in mathematical sciences.

- | | |
|-----------------|---------------|
| 1. Mathematics. | 3. Astronomy. |
| 2. Bookkeeping. | |

Schedule E.—Instruction in natural and physical sciences.

- | | |
|----------------|-------------------------|
| 1. Chemistry. | 8. Metallurgy. |
| 2. Physics. | 9. Entomology. |
| 3. Biology. | 10. Physiology. |
| 4. Botany. | 11. Bacteriology. |
| 5. Zoology. | 12. Pharmacy. |
| 6. Geology. | 13. Physical geography. |
| 7. Mineralogy. | 14. Meteorology. |

Schedule F.—Instruction in economic sciences.

- | | |
|-----------------------|--------------------------|
| 1. Political economy. | 3. Commercial geography. |
| 2. Home economics. | |

Schedule G.—Special preparation of teachers.

1. History of industrial education (with special reference to agriculture, mechanic arts, and home economics).
2. Methods of teaching agriculture, mechanic arts, and home economics.
3. Special instruction to persons teaching agriculture, mechanic arts, and home economics.

This classification is not construed by the Commission as intending that colleges shall be restricted in the expenditure of funds received from the Federal government to the subjects included in the classification, (if other subjects are fairly within the specifications of the grants,) nor as intending that colleges shall expend funds for all the subjects included in said classification.

In an address before the Commission respecting the proposition that the trustees of the University of Vermont and State Agricultural College, in the expenditure of the Federal moneys, have diverted the funds of the agricultural department to the other departments, a representative of that institution said:

“If we had been inclined to do it (divert the fund that was given to us by the appropriation of the United States Government,) we couldn’t have done it, because every dollar that comes from the government of the United States is, by the law, to be expended upon that campus—every dollar has been expended upon that campus; every dollar of it has been submitted to the government before they O. K.’ed it; every dollar has been O. K.’ed and approved by the government.”

In other words, the government’s approval of the expenditure of these moneys is cited as a conclusive answer to the criticism made respecting their expenditure. To what extent such governmental approval is a bar to the criticism, however, must be determined by the scope of the government’s requirements and the inspection upon which its approval is based, and whether the measure of its inspection is such as in practical operation to include the element which is more particularly of state concern, namely, that the expenditure shall be applied to instruction in the branches named, *with special reference to their applications in the industries of life in the several states, and to the facilities for such instruction, varying according as the resources and the peculiar industries of the states may vary.*

By section 2 of the Morrill Act of 1890, the treasurers of colleges or other institutions, entitled to receive sums of money thereunder, are “required to report to the Secretary of Agriculture and to the Secretary of the Interior, on or before the first day of September of each year, a detailed statement of the amount so received and of its disbursement.” By the regulations of the Department of the Interior such reports require a separate statement with respect to the money expended for salaries of instructors and for facilities in each of the several branches named in the statute, each branch being separately reported by schedules designated by the letters “A”, “B”, “C”, and so forth. From 1891 to and including 1913, the form of the reports varies slightly, but throughout, the general scheme of reports by

schedules remained. To these reports a statement, signed by the treasurer, appears as follows:

"I Hereby Certify that the above account is correct and true, and, together with the schedules hereunto attached, truly represents the details of expenditures for the period and by the institution named; that said expenditures were applied only to instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural, and economic science, with special reference to their applications in the industries of life, and to the facilities for such instruction; and that no part of these funds was expended for the erection, preservation, or repair of any building or buildings."

After the passage of the Nelson Act of 1907, permitting the use of a portion of the money for providing courses for the special preparation of instructors for teaching the elements of agriculture and mechanic arts, this certificate was changed by inserting after the words, "industries of life," the following: "to the special preparation of instructors for teaching the elements of agriculture and the mechanic arts."

It is clear that, beyond said certificate, the Federal government received by these reports nothing upon which to base an approval that the expenditures reported were applied to the several branches of instruction "with special reference to their applications in the industries of life."

The Commission deems it of importance to set forth the following summaries of said reports:

Report for 1891.

Received,		
Dec. 18, 1890,	\$15,000.00	
March 16, 1891,	16,000.00	
Disbursed for instruction and facilities		
In agriculture,		\$ 3,537.59
In mechanic arts,		4,210.39
In English language,		1,803.93
In mathematical science,		1,841.74
In physical science,		1,761.39
In economic science,		1,504.63
Balance unexpended,		14,514.76
	<hr/>	<hr/>
	\$31,000.00	\$31,000.00

Report for 1892.

Balance from 1891,	\$14,514.76	
Received,	17,000.00	
Disbursed for instruction and facilities		
In agriculture,		\$ 6,750.05
In mechanic arts,		14,267.18

FEDERAL APPROPRIATIONS

103

In English language	1,750.00	
In mathematical science,	2,550.00	
In physical science,	1,750.00	
In natural science,	2,346.00	
In economic science,	1,500.00	
Balance unexpended,	601.53	
	<hr/>	<hr/>
	\$31,514.76	\$31,514.76

Report for 1893.

Balance from 1892,	\$ 601.53	
Received,	18,000.00	
Disbursed for instruction and facilities		
In agriculture,		\$ 3,376.53
In mechanic arts,		3,500.00
In English language,		1,750.00
In mathematical science,		2,750.00
In physical science,		3,500.00
In natural science,		1,500.00
	<hr/>	<hr/>
	\$18,601.53	\$18,601.53

Report for 1894.

Received,	\$19,000.00	
Disbursed for instruction and facilities		
In agriculture,		\$ 3,360.00
In civil engineering,		3,500.00
In rhetoric and English literature,		1,750.00
In mathematics,		2,750.00
In physics and electrical engineering,		5,390.00
In political economy,		2,250.00
	<hr/>	<hr/>
	\$19,000.00	\$19,000.00

Report for 1895.

Received,	\$20,000.00	
Disbursed:		
Mathematics and English in Agricultural department, agricultural chemistry, botany, agriculture and horticulture, dairying,		\$ 3,044.75
Civil, electrical and mechanical engineering,		10,704.07
Rhetoric and literature,		2,000.00
Mathematics and physics,		2,000.00
Chemistry,		1,251.18
Political economy,		1,000.00
	<hr/>	<hr/>
	\$20,000.00	\$20,000.00

UNIVERSITY OF VERMONT

Report for 1896.

Received,	\$21,000.00	
Disbursed:		
Mathematics and English in agricultural department, agricultural chemistry, botany and horticulture,		\$ 3,400.00
Civil, electrical and mechanical engineering,		8,100.00
Rhetoric and literature,		3,000.00
Mathematics and physics,		3,500.00
Chemistry,		2,000.00
Political economy,		1,000.00
	<hr/>	<hr/>
	\$21,000.00	\$21,000.00

Report for 1897.

Received,	\$22,000.00	
Disbursed:		
Mathematics and English in agricultural department, agricultural chemistry, botany and horticulture,		\$ 3,450.00
Civil, electrical and mechanical engineering,		8,300.00
Rhetoric and literature,		1,750.00
Mathematics and physics,		3,750.00
Chemistry and natural history,		3,750.00
Political economy,		1,000.00
	<hr/>	<hr/>
	\$22,000.00	\$22,000.00

Report for 1898.

Received,	\$23,000.00	
Disbursed:		
English and mathematics in agricultural department, agricultural chemistry, botany and horticulture,		\$ 3,450.00
Civil, electrical and mechanical engineering,		8,300.00
Rhetoric, literature and elocution,		2,750.00
Mathematics and physics,		3,750.00
Chemistry and natural history,		3,750.00
Political economy,		1,000.00
	<hr/>	<hr/>
	\$23,000.00	\$23,000.00

Report for 1899.

Received,	\$24,000.00	
Disbursed:		
English and mathematics in agricultural department, chemistry, botany and horticulture,		\$ 3,650.00
Civil, electrical and mechanical engineering,		8,700.00

FEDERAL APPROPRIATIONS

105

Rhetoric, literature and elocution,	2,900.00	
Mathematics and physics,	3,850.00	
Chemistry and natural history,	3,900.00	
Political economy,	1,000.00	
	<hr/>	<hr/>
	\$24,000.00	\$24,000.00

Report for 1900.

Received,	\$25,000.00	
Disbursed:		
English and mathematics in agricultural depart-		
ment, chemistry, botany and horticulture,	\$ 4,074.98	
Civil, electrical and mechanical engineering,	8,900.00	
Rhetoric, literature and elocution,	3,100.00	
Mathematics and physics,	3,925.02	
Chemistry and natural history,	3,900.00	
Political economy,	1,100.00	
	<hr/>	<hr/>
	\$25,000.00	\$25,000.00

Report for 1901.

Received,	\$25,000.00	
Disbursed:		
English and mathematics, chemistry, botany		
and horticulture,	\$ 3,624.98	
Civil, electrical and mechanical engineering,	9,350.00	
Rhetoric, literature and elocution,	3,100.00	
Mathematics and physics,	3,925.02	
Chemistry and natural history,	3,900.00	
Political economy,	1,100.00	
	<hr/>	<hr/>
	\$25,000.00	\$25,000.00

Report for 1902.

Received,	\$25,000.00	
Disbursed:		
Horticulture,	\$ 875.00	
Civil, electrical and mechanical engineering,	7,800.00	
English, rhetoric, literature and elocution,	4,225.00	
Mathematics,	3,100.02	
Chemistry, natural history, biology, botany and		
physics,	7,899.98	
Political economy,	1,100.00	
	<hr/>	<hr/>
	\$25,000.00	\$25,000.00

UNIVERSITY OF VERMONT

Report for 1903.

Received,	\$25,000.00	
Disbursed:		
Horticulture,		\$ 743.75
Civil, electrical and mechanical engineering,		7,931.25
English, rhetoric, literature and elocution,		4,225.00
Mathematics,		3,100.02
Chemistry, natural history, biology, botany and physics,		7,899.98
Political economy,		1,100.00
	<hr/>	<hr/>
	\$25,000.00	\$25,000.00

Report for 1904.

Received,	\$25,000.00	
Disbursed:		
Horticulture,		\$ 737.50
Civil, electrical and mechanical engineering,		8,600.00
English, rhetoric, literature and elocution,		4,825.00
Mathematics,		2,375.00
Chemistry, natural history, biology, botany and physics,		7,849.98
Political economy,		612.52
	<hr/>	<hr/>
	\$25,000.00	\$25,000.00

Report for 1905.

Received,	\$25,000.00	
Disbursed:		
Chemistry in agricultural department and horti- culture,		\$ 1,500.00
Civil, electrical and mechanical engineering,		7,800.00
English, elocution, rhetoric and oratory,		3,875.00
Mathematics,		2,875.00
Chemistry, geology, zoology, biology, botany and physics,		7,850.00
Political economy,		1,100.00
	<hr/>	<hr/>
	\$25,000.00	\$25,000.00

Report for 1906.

Received,	\$25,000.00	
Disbursed:		
Agriculture, dairying, horticulture, agronomy and veterinary science,		\$ 2,500.00
Civil, electrical, mechanical and railway engi- neering and machine drawing.		7,400.00

FEDERAL APPROPRIATIONS

107

English language, literature, composition, rhetoric and oratory,	2,500.00
Mathematics, astronomy and book-keeping,	3,250.00
Chemistry, geology, zoology, entomology, botany, physics and mineralogy,	7,850.00
Political economy,	1,500.00

\$25,000.00	\$25,000 00
-------------	-------------

Report for 1907.

Received,	\$25,000.00	
Disbursed:		
Agriculture,		\$ 2,500.00
Mechanic arts,		7,400.00
English language,		2,500.00
Mathematical science,		3,250.00
Natural or physical science,		7,850.00
Economic science,		1,500.00
	<hr/>	<hr/>
	\$25,000.00	\$25,000.00

Report for 1908.

Received,	\$30,000.00	
Disbursed:		
Agriculture,		\$ 6,000.00
Mechanic arts,		7,400.00
English language,		2,900.00
Mathematical science,		3,250.00
Natural or physical science,		8,950.00
Economic science,		1,500.00
	<hr/>	<hr/>
	\$30,000.00	\$30,000.00

Report for 1909.

Received,	\$35,000.00	
Disbursed:		
Agriculture,		\$ 1,466.00
Mechanic arts,		11,434.00
English language,		3,900.00
Mathematical science,		5,700.00
Natural or physical science,		12,500.00
	<hr/>	<hr/>
	\$35,000.00	\$35,000.00

Report for 1910

Received,	\$40,000.00	
Disbursed:		
Agriculture,		\$ 3,893.59
Mechanic arts,		12,974.65

UNIVERSITY OF VERMONT

English language,	3,180.95
Mathematical science,	4,450.00
Natural or physical science,	12,225.81
Economic science,	3,125.00
Training of teachers of elementary agriculture and mechanic arts,	150.00

	\$40,000.00	\$40,000.00
--	-------------	-------------

Report for 1911.

Received,	\$45,000.00	
Disbursed:		
Agriculture,		\$ 4,288.14
Mechanic arts,		11,736.60
English language,		3,290.63
Mathematical science,		4,950.02
Natural or physical science,		16,877.23
Economic science,		3,557.38
Training of teachers of elementary agriculture and mechanic arts,		300.00
	<hr/>	<hr/>
	\$45,000.00	\$45,000.00

Report for 1912.

Received,	\$50,000.00	
Disbursed:		
Agriculture,		\$ 5,481.39
Mechanic arts,		13,202.34
English language,		4,122.92
Mathematical science,		5,240.00
Natural or physical science,		16,905.45
Economic science,		4,697.90
Training of teachers of elementary agriculture and mechanic arts,		
	<hr/>	<hr/>
	\$50,000.00	\$50,000.00

Report for 1913.

Received,	\$50,000.00	
Disbursed:		
Agriculture,		\$ 6,687.11
Mechanic arts,		14,519.77
English language,		5,166.32
Mathematical science,		3,000.00
Natural or physical science,		15,468.46
Economic science,		4,633.34
Training of teachers of elementary agriculture and mechanic arts,		525.00
	<hr/>	<hr/>
	\$50,000.00	\$50,000.00

The report of the Carnegie Foundation, respecting the expenditure of the Federal appropriation in 1912, says: "In other words, of the total sum of \$50,000 received by the trustees from the United States government because of the presence of the Agricultural College, only \$5,481 are spent otherwise than would be the case if the Agricultural College existed elsewhere." The University of Vermont and State Agricultural College, as an institution of higher learning, has made prominent the instruction it offers in the liberal arts—instruction of a purely cultural type. It is, therefore, somewhat surprising to learn that its largest activities are due to the fact that it is the State Agricultural College, by virtue of which it receives the Federal appropriation. Many of its courses of instruction, necessarily a part of a college of liberal arts merely, and required by it of all its academic students, are sustained either wholly, or nearly so, by the expenditure of this appropriation. This is particularly true of English and mathematics as disclosed by these reports and the several catalogues of the institution. It is true that the Federal statute expressly authorizes the expenditure of the appropriation for instruction in these subjects; but the Commission believes that the expenditure of the Federal funds for instructing classical and literary-scientific students in those subjects, as long as anything remains to be done to advance instruction in the more practical branches of agriculture and the mechanic arts, is not applying such expenditures to instruction required by the statute "with special reference to their applications in the industries of life."

Taking the amount shown by the foregoing summaries to have been expended each year from 1891 to 1913, inclusive, as a basis of computation, it gives the per centum expended for agriculture as follows:

[illegible]

The United States Commissioner of Education, in the same volume, on pages 361-363, gives a tabulated statement of disbursement of funds received under the Morrill Act of 1890, and the Nelson Act of 1907, by colleges of agriculture and mechanic arts in all of the states of the Union, for the year ending June 30, 1912. Computing the per centum from that statement, it appears that those appropriations (aggregating the \$50,000), were expended by the colleges receiving them in the six New England States and in New York, (we include New York because it is an adjoining state,) respectively, for instruction in agriculture, as follows: Connecticut, 57.17 %, Maine, 20.7 %, Massachusetts, 35.26 %, New Hampshire, 27.76 %, New York, 27.25 %, Rhode Island, 25.8 %, Vermont, 10.96 %. Thus Vermont is shown to have expended for that purpose in per centum a trifle more than one half the sum expended by Maine, less than two fifths the sum expended by New Hampshire, a trifle more than two fifths the sum expended by New York, less than one half the sum expended by Rhode Island, less than one third the sum expended by Massachusetts, and less than one fifth the sum expended by Connecticut.

We quote from page 336 of the same volume of the Report of the United States Commissioner, regarding the average percentage of the appropriation from the general government, expended for instruction in the various subjects, beginning with the year 1904 and ending with the year 1912, as follows:

"The total appropriated for the year ending June 30, 1912, from the United States Treasury in aid of the land-grant colleges under the provisions of the acts of August 30, 1890, and March 4, 1907, was \$2,500,000, each State receiving \$25,000 under the Morrill Act of 1890 and \$25,000 under the Nelson Act of 1907. Sums from this amount were expended for instruction in the various subjects in the proportion shown in the table following:

"Percentage of appropriation expended for instruction in various subjects.

Subjects	1904	1905	1906	1907	1908	1909	1910	1911	1912
Agriculture	16.8	16.8	17.6	17.7	19.3	21.2	20.1	22.5	22.0
Mechanic Arts	29.5	29.6	30.5	30.9	27.8	26.9	27.9	26.7	26.3
Eng. Language	12.3	12.4	11.7	10.9	10.7	10.1	10.0	10.1	8.9
Math. Science	11.8	11.8	11.6	11.6	11.0	10.7	9.4	9.3	10.0
Nat. & Phy. Sci.	23.4	23.2	22.7	23.2	24.9	23.2	23.8	23.7	26.5
Economic Sci.	6.2	6.2	5.9	5.7	5.6	5.7	5.5	5.9	5.4
Train. of Teacher					.7	2.2	3.3	1.8	.9
of									
El. Agri. & Mech.									
Arts									

„

In connection therewith the facts show that in 1893 when this appropriation stood at \$18,000 the trustees allotted \$3,376 to distinctly agricultural education. Thereafter these appropriations increased to the extent of \$1,000 a year up to the year 1900 when it amounted to \$25,000. The annual appropriation stood at that

sum until the year 1908 when it was \$30,000, increasing thereafter annually by \$5,000 until the year 1912 when it was \$50,000, at which sum annually it has since remained. Adverting to the tabulated statement of the per cent expended annually for agriculture by the University of Vermont and State Agricultural College, (shown on pp 109-10,) it is seen that after the year 1893 the per cent thus expended in the majority of the years grew less until in 1901 it was 14.49 %; that thereafter for four consecutive years it was 3.5 %, 2.97 %, 2.95 %, and 6 %, respectively; that in the next three years it was increased to 10 % in each of the first two years and to 20 % in the third, which was 1908; that in 1909 it was 4.18 %, in 1910 it was 9.73 %, in 1911 it was 9.5 %, in 1912 it was 10.96 %, and in 1913 it was 13.37 %. The average annually during the last twelve years being 8.59 %.

It appears that before money was received from the general government under the Morrill Act of 1890, complaints were made by the State Grange that the Federal appropriation received by the University of Vermont and State Agricultural College was not being expended by it with due respect for agriculture; that investigations concerning it were made by persons representing the State Grange, by persons representing the state legislature, and by a person representing the general government; that reports based upon such investigations were made against the University of Vermont and State Agricultural College by those persons so representing the State Grange, and in favor of it by those persons representing the legislature, and by the person so representing the general government; and that addresses were delivered by men high in civil life, having knowledge of the matter, explaining the object of the Morrill Act of 1862, and commending the course of the University relative thereto. Yet so far as these things were prior to the Morrill Act of 1890, they can have no bearing on questions pertaining to the expenditure of moneys under the specific provisions of that grant.

At a hearing before the Commission, the President of the University quoted from an address delivered by Senator Justin S. Morrill at the Commencement of the University on the 28th of June, 1893, in which he spoke at considerable length of that institution as a land-grant college, and commended its work in carrying out the purpose of the Federal grants. Yet it should be remembered that this address was delivered the third year after the enactment of the second Morrill Act which was approved on August 30, 1890. It appears that no money was received under this grant until December 18, 1890, so that when Senator Morrill delivered the address mentioned, the institution had had the benefit of that appropriation for three years. In those three years the portion of that money expended for instruction and facilities in agriculture was as follows: In 1891, 21.45 %, in 1892, 21.83 %; and in 1893, 18.15 %. Senator Morrill died (in 1898) before the annual sum of that appropriation reached the full \$25,000, and more than eight years before the Nelson Act of 1907, increasing the Federal appropriation so that four years thenceforth it should amount to \$50,000, was passed. When he spoke in 1893, he had been a trustee of the University of Vermont and

State Agricultural College a long time, and presumably was conversant with the way the funds received under the Morrill Act of 1890 had been distributed up to that time. The percentage was afterwards decreased within his lifetime to 15 %, but how he looked upon such decrease, or whether he gave the matter any attention in the last years of his life, the Commission has no information.

What Senator Morrill would say today, were he alive with knowledge of what has taken place in these respects since the time of his death, no one can tell. But with common knowledge of his great services to the State of Vermont, of his unceasing labors in the interest of the industries of the state and particularly that of agriculture, what can one imagine he would say to know that in 1902, within four years after his death, but 3.5 % was expended on agriculture by the land-grant college in Vermont; that in 1903, but 2.97 % was so expended by that institution; that in 1904 when the average expenditure for such purpose by the land-grant colleges in this country, from the same appropriation, was 16.8 %, in Vermont it was but 2.95 %; that in 1905 when the average expenditure by such colleges was 16.8 %, in Vermont it was but 6 %; that in 1906 when the average expenditure by such colleges was 17.6 %, in Vermont it was but 10 %; that in 1907 when the average expenditure by such colleges was 17.7 %, in Vermont it was but 10 %; that in 1908 when the average expenditure by such colleges was 19.3 %, in Vermont it was raised to 20 %; that in 1909 when the average expenditure by such colleges was 21.2 %, in Vermont it was lowered to but 4.18 %; that in 1910 when the average expenditure by such colleges was 21.1 %, in Vermont it was but 9.73 %; that in 1911 when the average expenditure by such colleges was 22.5 %, in Vermont it was but 9.5 %; that in 1912 when the average expenditure by such colleges was 22 %, in Vermont it was but 10.96 %; and that in Vermont the annual average during the last twelve years was but 8.59 %.

Certainly one should note the change of circumstances and consider pretty carefully before applying what Senator Morrill said in 1893 to the conditions of things as they have existed since his death, and before considering what he said on that occasion, as approving the course that has been pursued in this respect by that institution since his death.

Furthermore it has been suggested that there has been a tacit approval of the University's construction of these Acts of appropriation and of its use of the funds, but such suggestion is without force for two or three reasons, though we need mention but one, namely, that not since the passage of the Morrill Act of 1890 have the people of this state had knowledge of the material facts as to the manner in which the funds therein appropriated were being applied distributively, and nothing is more firmly settled as a legal or equitable principle than that there can be no acquiescence without knowledge of all the material facts. "*And a cestui que trust,*" it is said in Volume 2, of *Leading Cases in Equity*, notes, page 1789, "will not be affected with constructive knowledge of a breach of trust merely because he might by inquiries have discovered it."

It can not be said that the funds received under the Morrill Act of 1890 and under the Nelson Act of 1907, have been expended for purposes unauthorized by the Acts of appropriation; and it is true that the treasurer's reports have been approved by the Department at Washington. Yet is this a full answer to the complaint that these funds are being used by this institution without showing that degree of respect for the leading industry of the state, fairly contemplated by the Acts of appropriation?

Considering the superlative importance of agriculture among the industries of life in this state, is it not a matter for serious reflection, whether the distributive expenditure of said annual fund in a way to apply only the small varying per cent shown within the last dozen years, with an average of only 8.59 %, to distinctively agricultural education, is applying that fund to instruction in the branches named in the Acts of appropriation "with special reference to their applications in the industries of life, and to the facilities for such instruction" as they have been and are known to exist in this state?

The phrase quoted is an important part of the law. It was manifestly inserted in the interests of the several states. It may be disregarded in the expenditure of the funds, and yet the reports of treasurers be approved by the Department, because the expenditures reported were for purposes authorized. This is as far as the general government would be likely to interest itself, and as far as its approval of the treasurer's reports has much significance or bearing on the question under consideration. Whether the requirement of that phrase be observed by the institution receiving the funds, is a matter peculiarly of state concern. It is in the interest of the public welfare that the institution develop courses of instruction along the line of the state's leading industries; and so to do, amounts to no more on the part of the institution than the faithful performance of its duties toward the people of the state, the real beneficiaries of the trust. Faithful performance in this respect requires not only that the expenditure be authorized by the Acts of appropriation, but that it conform to the provisions of the trust in their true spirit, intent, and meaning. It is said by Mr. Pomeroy, in his work on Equity Jurisprudence, Vol. 2, Sec. 1062, that trustees are bound in the first place, "to conform strictly to the directions of the trust." And that, "A trustee can use the property only for the purposes contemplated in the trust, and must conform to the provisions of the trust in their true spirit, intent, and meaning, and not merely in their letter."

In the matter of Tappan's Appeal, found in the 52d of Connecticut Reports, page 412, the testatrix suggested four different modes for the administration and dispensation of the public charity there in question, and declared her preference for the first mode named "if the same be made practical and legal for the purpose;" but if for any reason the first named mode could not be legally carried into effect, then she declared her preference for the second mode suggested; in like manner for the third and fourth modes in their order. It was held that the appellant was in error when she claimed that the trustees had the discretionary power to select

either of the modes prescribed for administration of the trust; that they had no discretion in the matter; that they must take the first, if that mode should be found to be practicable and legal; but if not, then they must resort to the second, and that must be the mode, if legal for the purpose, and so on with the third and fourth modes stated.

In the opinion of the Commission, the phrase quoted above from the Morrill Act of 1890, considered in its relation to the entire provision of which it is a part, was intended to prescribe, and does prescribe with reasonable certainty, the course to be pursued in making the annual distributive allotment of the appropriation under that Act to the branches named therein, and this course must be substantially followed in order to effect a performance of the trust in a manner that shall properly respect the state's leading industries of life; and, except as to such portion as may be used in the special preparation of instructors for teaching agriculture and the mechanic arts, the same course was prescribed to be followed in the expenditure of the moneys appropriated under the Nelson Act of 1907. The Commission is of the further opinion that, owing to the policy of the trustees of the University of Vermont and State Agricultural College, this course has not been substantially followed in the expenditure of the moneys received under these two acts of appropriation, and consequently that that institution has failed to perform its duties and obligations in conformity with the true spirit, intent, and meaning of the provisions of the trust, and it is so determined.

It is manifest that as to agriculture, efficient work and satisfactory results can not be had in this institution without a change in the policy of the trustees. Moreover it appears that the agricultural equipment of the institution is meager—too meager for the kind and the quality of work which should be done. This meagerness may fairly be assigned, first, to the fact that the moneys under the Federal appropriations have, to so disproportionately small extent, been applied to agriculture and to facilities for instructions therein; and secondly, to inadequate aid by way of specific state appropriations;—to the former, more than to the latter.

The report of the Carnegie Foundation under the subdivision of "The State Agricultural College," pages 164-172, should be carefully studied. We quote with approval therefrom:

"To sum up the situation with respect to the College of Agriculture, it may be said that its courses are not based upon a consistent educational policy, that the equipment for teaching is meager, that on their practical side the courses seriously lack equipment, and that by reason of these conditions the College of Agriculture is not adapted to serve well either the needs of the boy who desires to be a practical farmer or those of the youth who looks toward a scientific training in agriculture, and finally, that this whole situation has lent itself to a regime under which the college has a very slender connection with the agricultural industries of the state. It does not help or guide these industries in any such way as should be expected of an efficient agricultural college.

"These statements are not made with any desire to criticize the professors in the Agricultural College. These professors are excellent men, and they have done admirably with the means that they have had at their command. The situation in which the College of Agriculture finds itself—the lack of equipment, the empirical quality of its courses, and the failure to connect itself with the industries of the state—is the result of a policy of administration for which the trustees are responsible. This consists in the expenditure that the trustees make of the generous annual gift that the state receives from the United States government. * * *

* * *

"The most practical and definite obligation of the state at the present time in higher education is to see that a clear policy is entered upon as to the function of the Agricultural College, and that then, in the second place, the college shall be adequately supported.

* * *

"* * * By every consideration of efficiency and of state pride the commonwealth should insist that a fair proportion of the United States annual grant shall go into agricultural instruction, and it should supplement this income by such means as are necessary to effect the contact between the agricultural school and the agricultural industries, a cause which is not within the provisions of the grants made by the general government.

* * *

"In addition to giving to the Agricultural College an adequate support, it is also clearly the duty of the trustees to set the Agricultural Experiment Station free to bend its efforts directly and energetically to the investigation of those problems whose solution means so much to the individual farmer and dairyman. There is an enormous field in Vermont for the Agricultural College and the Agricultural Experiment Station, but in order that these agencies may do their work, there must be a clear conception of what that work ought to be, a suitable organization for carrying it out, and a use of the money now in hand for the purposes of agriculture rather than for the purposes of general instruction."

It is not the purpose of the Commission to belittle any other branches of education, nor does the Commission recommend the taking from such other branches, or any of them, any portion of the money received under the Federal grants, which, under the proper administration of the trust connected with those grants, should be applied to such other branches. To do that would be as much a deviation from the proper course as it is to deprive agriculture of the portion to which it is entitled. By giving emphasis to agricultural education in the University of Vermont and State Agricultural College, the Commission is not to be understood as in any sense

narrowing education. As already seen, agriculture is Vermont's predominating industry of life and it is the duty of this Commission to make recommendations looking to the proper application of the money allotted to that institution under legislation requiring such money to be expended by it with special reference to the relative prominence of the state's industries.

The Commission believes that a change in policy by the trustees may be looked for, whereby agriculture will receive proper consideration in the annual distributive expenditure of the Federal appropriations. This belief is based particularly upon what was said at a hearing before the Commission by one of the prominent trustees. He was asked by one of the Commissioners if he thought that they had expended the Federal agricultural appropriation wisely and well from the standpoint of the purpose for which it was made. Protesting that there had been no misuse of the Federal funds, he answered in substance that he thought the time has come when the policy of the institution towards the agricultural appropriation is wrong; that from now on they have, and perhaps from a time that dates back possibly eight or ten years they had, the opportunity to make better use of that Federal appropriation; and that if the policy was wrong it should have been corrected before, but certainly should be corrected now,—adding that he had previously taken this position on the board of trustees.

With a change effected in this direction, so as fairly, and reasonably, and sympathetically to conform to the provisions of the trust in their true spirit, intent, and meaning, the University of Vermont and State Agricultural College may be looked to for efficient training in scientific agriculture; but in the judgment of the Commission its agricultural function should not include training in practical vocational farming at the institution, beyond what may be essential to the efficient performance of its function to develop scientific agriculture, or what may be necessary there in carrying out the extension work under the Acts of Congress. The teaching of practical vocational farming and the incidents thereto constitute the function of the State Agricultural School at Randolph. The Commission believes that neither of these institutions can efficiently perform the functions of the other, and that neither should, in any real sense, attempt to encroach upon or duplicate the work of the other. As to the proper function of the Agricultural College we call attention to the report of the Carnegie Foundation (page 171):

“Shall the function of the Agricultural College be to train farm boys in the technique of their vocation in some such way as they are trained in the agricultural school at Lyndonville, or shall its function be to develop scientific agriculture in Vermont? Either one of these functions is defensible, but they cannot both be carried on simultaneously. Our experience of fifty years in agricultural education goes to show that a trade school will not grow in a university atmosphere, and that the real function of a university college of agriculture is the promotion of scientific agriculture and the maintenance at the same time of right relations to elementary agricultural training-schools. The second, and in some ways the greatest, function

of a technical college of agriculture is the development of a fruitful and stimulating relation with the farming industries of the state in which it stands. To be in close touch with the agricultural problems of the state, to deal with these problems by the best means that science affords, and to put the fruits of these investigations by simple, direct, and feasible methods into the hands of the farmers themselves, is the greatest function that such an agency can perform."

In this connection, it should further be said by way of emphasizing the importance of this class of instruction, that, in order for efficient work in the high schools of the state along the lines of agriculture, it is essential that teachers be had, who are qualified therefor, and to the University of Vermont and State Agricultural College, the state must largely look for the training of such teachers.

It is said in the report of the United States Commissioner of Education, for the year ending June 30, 1913, (of which volume I only is out,) page 212:

"The increase in the number of students in the agricultural colleges was greater in 1912-13 than ever before, and the increase was well distributed throughout the United States. A large part of this increase is due to the demand for teachers of agriculture and for county demonstration agents.

* * *

"According to the most reliable information obtainable, there were about 2,300 high schools in the United States teaching agriculture in 1912-13. This indicates an increase of about 300 over the previous year. * * *

"Agriculture is more and more coming to be considered a fit subject of study for the elementary school, but at the same time the need of trained teachers is widely recognized as a serious hindrance."

In the passage of the Nelson Act of 1907, the Congress of the United States, in an unqualified manner, recognized the importance of having specially trained teachers, by authorizing the use of a portion of the money thereby appropriated in "providing courses for the special preparation of instructors for teaching the elements of agriculture and the mechanic arts." And in the rulings and instructions approved by the United States Bureau of Education November 2, 1911, section 8 reads:

"8. All or a part of the funds provided by the act of March 4, 1907, may be used 'for providing courses for the special preparation of instructors for teaching the elements of agriculture and mechanic arts.' It is held that this language authorizes expenditures for instruction in the history of agriculture and industrial education. in methods of teaching agriculture, mechanic arts, and home economics, and also for special aid and supervision given to teachers actively engaged in teaching agriculture, mechanic arts, and home economics in public schools. It does not authorize expenditures for general courses in pedagogy, psychology, history of education, and methods of teaching."

The national policy thus shown voices a sentiment that should touch a responsive chord throughout this domain.

In the mind of the Commission, the state, acting in the special interest of her great agricultural industry, proper assurances being had, may well lend such aid as shall be reasonably necessary to the suitable equipment of the agricultural department of the University of Vermont and State Agricultural College; and believing that henceforward there will be an increasing need of trained teachers qualified to teach agriculture in the secondary schools of the state, and consequently that the production of such teachers by the University of Vermont and State Agricultural College will be for the special interest of the state, the Commission recommends that the board of education be authorized to make suitable arrangements with that institution for the training of this class of teachers, if it can be done upon a reasonable basis without duplication as discussed in the chapter on Duplication, and that money be appropriated to enable the board, under its supervision, to carry out the arrangements so made, and that the work under this arrangement should be done in such a manner as shall make the department, to all intents and purposes though not in law, relate to the state.

3. UNIVERSITY OF VERMONT—COLLEGE OF MEDICINE

In support of the claim that the University of Vermont and State Agricultural College is not a private but a public corporation and therefore entitled as a matter of right to state support, representatives of that institution have said little respecting the exact relationship existing between the College of Medicine and the state. After a century of existence of merely a nominal connection with the University of Vermont, the College of Medicine was made, in 1899, "a coordinating department of the university under the control of the board of trustees." In 1911, according to the catalogue, it was "made a part of the university system," and no claim has been made before the Commission that it was in character, that is, public or private, different from the institution of which it thus forms a part.

The Commission has signally failed in its purpose if it has not made clear the principle upon which, in its judgment, state appropriations to higher education, for the present at least, may legitimately and properly be based. That principle measures the state's duty and obligation to higher education by the specific and needed service it performs for the state. The only question, therefore, material here, is: Does the College of Medicine perform such a service? That its service—the training of physicians and surgeons—is specific, is unquestionable. Whether it is needed by the state is to be determined by the service rendered and likely to be rendered, and the cost thereof.

There is one standard only governing the practice of medicine and surgery, efficiency, and that standard is uniform in all states. In recommending a state appropriation for the support of a school of pedagogy in Middlebury College the

Commission is influenced thereto by the fact that those who are to teach the youth of Vermont can do more efficient work when prepared therefor in the environment in which they are to teach, and this, as pointed out in our discussion of the elementary and secondary schools, because environment is such an important element in instruction. The state needs teachers trained in the state. She needs the best and the highest trained physicians and surgeons; but unlike teachers, that they receive their training in Vermont is of no importance in determining their qualifications to practice here.

This uniformity of standard is well shown by the work of the American Medical Association. This body "representing the organized medical profession of this country, was organized in 1846 for the express purpose of improving medical education." In 1904 the governing body of the association created a permanent committee, the Council on Medical Education, whose function was "to collect and publish reliable information regarding medical education, and to do what it could to secure the adoption of better educational standards." Through the work of the council, an "ideal standard" of entrance requirements to medical schools was fixed, a standard that included the requirement of one year of work devoted to college courses in physics, chemistry and biology, in addition to the completion of a standard four-year high school course. Medical institutions meeting this requirement are rated by the association as Class A, and the Commission understands that medical schools of a still higher rank, having an entrance requirement of two years of college work, are rated by the association as Class A+. In 1900, only two medical schools required any preliminary training beyond a high school course; and this requirement was largely nominal. Through the work of the association, however, the number of medical schools has been reduced since 1906 from 162 to 106, 31 of which are in Class A+ and 21 in Class A. Extended mention of this work of the American Medical Association is here made because there have been current suggestions of a nation-wide conspiracy having for its object the elimination of the smaller medical schools—the establishment of a trust in medical education—a criticism levelled in some degree at the Carnegie Foundation for the Advancement of Teaching, due doubtless to the fact that at the time the American Medical Association published its second classification in 1910, the Carnegie Foundation published its report on medical education in the United States and Canada. The conspiracy—if that be a proper term—is one of good. Of this work the United States Commissioner of Education, in his report for 1913, of which volume I is just received, says, "As may be surmised, the marked reduction in the number of medical colleges has not been to the detriment of medical education but has been to its advantage; it has not lessened the opportunities for students to study medicine, but has provided them with greater opportunities in better-equipped colleges." The College of Medicine itself makes no complaint of this so-called conspiracy. Rather it has voluntarily adopted the standards set up by the American Medical Association, for in the fall of 1912, the Vermont institution raised its entrance requirements to those of Class A.

Throughout the state, in almost every city and village, graduates of the University of Vermont College of Medicine by efficient practice of their profession give testimony to the good training received by them at that institution. It is but natural that they should champion the continued existence of their professional Alma Mater. The question before this Commission, however, is not one of sentiment but of justice. It has been urged that without the College of Medicine there will be no source to supply competent practitioners for the state. The experience of other states, however, that are without medical schools and that are nevertheless adequately served in this respect, deprives this argument of any force. As well might it be said that Vermont's churches must close their doors for want of clergymen because the state has no school of theology, or that the laws of the state can not be properly interpreted and the rights of her people thereunder protected, without a school of law.

Granting, however, that the service rendered to the state by the College of Medicine is of a character to justify the state in sustaining it by appropriation of the public money, the question then becomes a relative one, namely, Should the state continue to grant a subsidy to the College of Medicine at Burlington—a grant in no way related to the state's policy of public instruction—and fail to meet fully its constitutional obligation to furnish to all the youth of the state an adequate preparation for everyday life? In 1909 the state appropriated to the College of Medicine, \$10,000, and this appropriation was increased for the year 1913 to \$23,500. The admissions declined from 55 in 1909 to 40 in 1911, and in 1912, when the new entrance requirements, by which the college entered Class A, were adopted, only 12 students were admitted, of which only 3 were from Vermont. In the entering class of 1913 of 18, 8 were from Vermont. The report of the Carnegie Foundation refers this decline in student attendance to the increased entrance requirements voluntarily and rightly adopted by the college. The result, however, indicates that if the college is to maintain a proper standing among medical institutions, it does not offer sufficient inducement to attract students in numbers sufficient to warrant its continuance by state support or otherwise. Indeed, the dean of the institution has been frank to say that in order to maintain the standing of the College of Medicine, enlarged clinical facilities must be had.

Respecting this matter, the United States Commissioner of Education in his report referred to, says "Another marked development in medical education is the provision for more adequate clinical facilities by a larger number of medical colleges, either through securing hospitals both owned and controlled by the medical school or through contract relationships with large hospitals whereby the medical college has been given more liberal control of the clinical facilities. This is an exceedingly important matter in medical education. If young physicians are to go forth properly qualified to recognize and treat the various complex disorders that affect mankind, it is necessary that during their medical course they have the opportunity, under proper supervision, to study sick patients at the bedside in the hospital."

In an address before the Merchants' Association, in Burlington, on March 19, 1914, Dean Henry C. Tinkham referred particularly to the inadequate clinical facilities of the College of Medicine. He said in substance that there should be hospital facilities aggregating 200 beds, or 100 beds in addition to those now available; and that this need could be met in two ways: either by additions to the Mary Fletcher and Fanny Allen hospitals, or by the college itself erecting a hospital. Doctor Tinkham regards the first plan as the more feasible one and believes that it could be carried out at a cost of about \$50,000 or \$75,000. His conclusion is squarely in agreement with that reached by the Carnegie Foundation in its report, which says, "Somewhere between \$50,000 and \$75,000 will be needed to conduct in Burlington a school upon a university basis and capable of giving a medical education adequate to the demands of present-day teaching." Of this money, Doctor Tinkham believes that the state should appropriate something less than \$50,000, but more than its present appropriation of \$23,500. The urgency of this need of increased appropriations by the state is apparent from Dean Tinkham's statement that unless the conditions in the College of Medicine, particularly in regard to hospital facilities, are improved by February of next year—at the biennial rating of medical schools by the American Medical Association—the institution will be reduced in rating to Class B.

In brief, the head of the College of Medicine frankly announces that unless the state immediately increases its appropriation, the institution will be lacking in those facilities required by institutions of the rank now held by it and necessarily attract fewer students than now. This Commission, in the performance of its duty toward the elementary and the secondary schools of the state, has been compelled to recommend the withdrawal of existing state appropriations to higher education in general. How, then, can it be reasonably expected that the state should not only continue, but also increase, its present appropriation to an institution not situated to perform any specific service for the state more than other institutions in providing education, not of a character beneficial to a general student body, but to a few students seeking special professional training?

X

MIDDLEBURY COLLEGE

MIDDLEBURY College is a private institution, chartered under the name of The President and Fellows of Middlebury College. In 1908 the legislature appropriated to that college \$8,400, of which \$6,000 annually was "for the establishment and maintenance of a department of pedagogy for the education and training of high school teachers in said institution." It was provided by the same Act that the fellows of the college should make an annual report to the governor of the work done in behalf of the department of pedagogy, together with a statement in detail of all expenditures made in its promotion. In 1910 the legislature appropriated to that college \$16,000, of which \$13,600 annually was "for the establishment and maintenance of a department of pedagogy for the education and training of high school teachers in said institution, and to provide instruction in forestry and other subjects relating to the industries of Vermont." In 1912 the legislature appropriated to that college \$12,800, of which \$10,400 "shall be annually expended by such institution in providing instruction in subjects essential for students preparing to teach in Vermont high schools and academies."

It has been urged before this Commission by the President and Fellows of Middlebury College that the department of pedagogy should be continued for the training of high school teachers, so that the high schools may be supplied largely with teachers who have received such special training in the state, and consequently that state aid should be given. We have already recommended teacher-training classes in selected high schools to meet the demand for well-trained teachers in the elementary schools. We discuss above the importance of having teachers in the high schools specially qualified to give instruction along the lines of agricultural training, and make recommendations looking to the training of such teachers by the University of Vermont and State Agricultural College. It is also essential to efficient work in the high schools and to satisfactory results, that professionally trained teachers be had for the work, other than that pertaining more particularly to agriculture, to the end that the whole problem of secondary instruction may be solved in a manner most for the public good. There seems to be no lack of applicants for positions as teachers in the secondary schools. But is the state reasonably sure of obtaining teachers of the efficiency necessary for the class of work desired unless the state interests herself in the training of such teachers? Other things equal, a teacher professionally trained in the state's atmosphere, conscious of, and in sympathy with, the lives and needs of the state's youth is better equipped for educational work in the state's secondary schools than a teacher from without the state, not imbued with the spirit of success according to the state's needs and progressive educational aim. It is said by President A. Lawrence Lowell of Harvard University, in his work on *The Government of England*, Vol. 2, page 329, "The growing interest in secondary education gave rise to another royal commis-

sion, appointed in 1894, with Mr. (James) Bryce (author of the *American Commonwealth*) at its head. Like its predecessor thirty years before, it made an elaborate inquiry, and added one more to the great reports on English education." And on page 338, note 3, the author, referring to that commission, says, "The lack of professionally trained teachers for the secondary schools themselves was one of the matters on which the commission of 1894 laid stress."

In the report of the Carnegie Foundation, page 11, it is said:

"It may be added that the teachers necessary for the secondary schools are already supplied in sufficient numbers by the colleges, but the examination that has been made shows that the quality of these teachers, so far as their knowledge of theoretical and practical teaching is concerned, leaves much to be desired. It is clear that if the colleges are to supply a teacher equal to the work of the secondary school, they must give these teachers a far more practical training in teaching than has hitherto been the case."

The United States Commissioner of Education (in his report, page 25, for the year ending June 30, 1913, of which volume I only is out), states that "The State of Rhode Island, through its legislature, has entered into cooperation with Brown University for the professional education of college graduates desiring to prepare for positions as high-school teachers or principals."

A course not materially unlike the one here recommended, has been pursued in England, for substantially the same purpose. Thus President Lowell (in his work on the Government of England, Vol. 2, page 350), speaking concerning public aid to provincial universities and university colleges, says, "The grants from the national government are given partly by the Education Department, on account of scientific courses and the training of teachers; sometimes partly by the Agricultural Department also, on account of instruction in farming; * * *"

Should the public schools be reorganized as recommended in this report, more high-school teachers will be needed in this state than ever before.

The Commission is therefore of the opinion, that it is for the special interest of the state to have teachers of this class professionally trained in the state for work in the secondary schools, and that to this end, the department of pedagogy at Middlebury should be continued; that this should be done in such a manner as to make it, to all intents and purposes though not in law, a state department; that the state board of education should be authorized by law to make arrangements with Middlebury College for that purpose on reasonable terms and conditions, to the extent necessary to fulfil the purpose of the law in such behalf, all under the supervision and control of said board, without duplication as discussed in the chapter on Duplication. The work of the department of pedagogy, limited as above indicated, being for the special interest of the state, appropriations should be made to enable the state board of education to carry out, in spirit and meaning, the arrangements made by said board in this respect.

XI

NORWICH UNIVERSITY

NORWICH University was founded in 1819 by Captain Alden Partridge and was chartered by the legislature in 1834. Captain Partridge was a former superintendent of West Point and instruction in military science seems not only to have been the fundamental purpose of the establishment of this institution but has ever since remained its controlling influence. Here things military are not an incident to the collegiate work: they are the principal; and while a measure of instruction in military science is undoubtedly of value to the youth by way of inculcating due regard for authority, the measure of militarism that pervades the curriculum at Norwich University goes far beyond any reasonable requirements in that respect. The military training given at Norwich University is of a class second only to that given at West Point. The Commission is informed that actually more time is devoted to things military at Norwich than at West Point, a singular fact since the avowed purpose of training at West Point is the preparation of young men for the profession of arms while that of Norwich is the preparation of young men for civil life with opportunities for a select few to enter military life.

In the military training given, Norwich is ranked by the government as a "distinguished" institution. As an institution of higher learning, aside from the military instruction given, it is, so far as the evidence before the Commission discloses, an institution of no special distinction and inferior in educational facilities to the state's other institutions of higher learning. Norwich University has sent forth into life men who have made history in the army and in the navy of the country, and in civil life. Its record is a proud one. But these things alone do not warrant the Commission in extending to it particular consideration, for the same is true of the state's other institutions of higher learning. What is there, then, respecting Norwich University that entitles it to state assistance?

The Commission is firmly convinced, and throughout this report has frequently announced, that there is one rule only by which the duty and obligation of the state to institutions of higher learning can be measured, that is, that until the state's elementary and secondary schools are placed upon a firm foundation with a system reorganized and amply maintained in accordance with the recommendations herein made, no duty or obligation rests upon the state to assist institutions of higher learning other than such assistance as may naturally result from the performance by such institutions of some specific work for the state and required by the state in the carrying out of its policy for the proper development and maintenance of its elementary and secondary schools.

Measured by this rule, by what does Norwich University justify its claim for assistance by the state? The notable record of the institution, and of its many illustrious graduates, is a source of just pride to every Vermonter. It is gratifying to know that the state has within her borders a military school, one of a class of

16 institutions throughout the country ranking not far below West Point. But in these days of peace, when there is an urgent need for unlimited state support of the common schools, whereby every boy and girl may receive the best possible equipment to meet the ordinary duties and responsibilities of life, where is the justification for lending support to an institution whose principal work is training for the profession of arms?

The state has been increasingly generous to this institution for more than half a century. In 1852 it received a liberal portion of the school fund; in 1884 the legislature appropriated \$1,500 annually, to be used in the payment of tuitions and room rent of thirty cadets, this appropriation being raised in 1892 to \$2,400 annually; in 1898 the amount was further increased to \$6,000, of which \$3,600 per year was given "for carrying out the provisions and purposes of the charter;" in 1904 the appropriation was again raised to \$11,000, the sum of \$5,000 being granted for the period of ten years "to increase the efficiency of the engineering department;" in 1913 the legislature amended the scholarship provisions of 1892 and 1904, confirmed the annual appropriation of \$11,000, and increased the aggregate appropriation by \$9,000 annually for the term of two years, making a total of \$20,000 per annum, all of which, except \$2,400 for scholarships, was given "to be expended in carrying out the provisions of the charter of said institution." This increase in appropriations, it is apparent, is one manifestation of the tendency which has developed in recent years respecting all the institutions of higher learning within the state; and it is to be particularly noticed that by such appropriations the state has not undertaken specifically to aid the development of military instruction at the institution, and that the increase made has been in duplication of educational effort, a matter specifically submitted to this Commission for investigation and obviation. It is true that Norwich University has been called by the legislature the Military College of the State of Vermont but, as pointed out in our discussion of the claim of the University of Vermont and State Agricultural College, that the legislative declaration that it was a state institution made it such, the legislative recognition of Norwich University as the military college of the state did not make it a state institution, that is, a public corporation, nor in any wise affect the duty or the obligation of the state respecting it.

The Commission might well repeat what is said in the report of the Carnegie Foundation respecting the inadequate facilities of Norwich University for education in engineering and the small and decreasing per cent of Vermont students attending it—a decrease from 77 % in 1902-3 to 42 % in 1912-13. These matters, however, are fully treated in that report and, in the judgment of the Commission, furnish such evidence as would create a grave doubt in the mind of the Commission respecting state aid to the institution even though the work performed by it were of a character justifying state support by the rule above referred to.

Sentiment and personal inclination may advocate continued financial support by the state of an institution whose record in its particular field of work has been as

creditable as that of Norwich University. A proper regard, however, for the entire educational system and conditions of the state—and that is the scope of the matters submitted to the determination of this Commission—compels the conclusion that the educational conditions of Vermont, respecting the elementary and the secondary schools, require a recommendation from this Commission withdrawing state appropriations from Norwich University. On any fair and just view of the rights, duties and obligations of that institution and of the duty and obligation of the state to it, the Commission is unable to escape the following conclusion reached by the Carnegie Foundation: “That the State of Vermont should tax itself to support a school whose facilities for engineering are so meager, whose chief function is military instruction, the majority of whose students are drawn from outside the state, is a use of money that can not be defended upon any educational grounds, or upon the grounds of the state’s duty to the system of elementary and secondary schools.”

XII

DUPLICATION

By the joint resolution creating it, this Commission is required to make such recommendations respecting the state's institutions of higher learning "as will prevent unnecessary duplication and consequent financial waste." In a narrow sense the performance of this duty may be said to relate only to duplication of work supported by state subsidies. In a larger and truer sense, however, the duplication referred to may relate to the entire activities of these institutions, although in some circumstances there may be duplication that is both necessary and justifiable.

Time was—and not long ago—when competition was regarded as the most important thing in any development. More recently, however, this notion has come to be thought only partly true. Efficiency of effort, whether prosecuted under competitive conditions or otherwise, is the end to be attained; and while competition may make for efficiency in business and mercantile activities, where success is measured in dollars and cents, in educational effort it breeds an unwholesome rivalry destructive of efficiency, which is there measured by the degree of attainment to an ideal.

As already pointed out, the state is justified in aiding institutions of higher learning only for value received in the performance for the state of some distinctive service. Institutional rivalry, however, may so far inevitably affect the character of that service that the state should not assist any institution competing therein. In return for aid by the state, the institution aided does not meet its obligation in the performance merely of the distinctive service by which the assistance given is justified. Plain principles of justice and fair dealing impose upon that institution the duty to refrain from activities naturally tending to make ineffective the state-aided work of other institutions.

The history of recent state appropriations to higher learning shows that out of institutional rivalry has grown duplication of effort. By No. 50, Acts of 1908, \$16,000 was annually appropriated to the University of Vermont and State Agricultural College, \$3,600 of which should be expended "in providing instruction in branches relating to the industrial arts." By the same Act, \$8,400 was annually appropriated to Middlebury College, \$6,000 of which should be expended "for the establishment and maintenance of a department of pedagogy for the education and training of high school teachers." In 1910, however, by No. 75, Acts of 1910, the University of Vermont obtained an annual appropriation of \$16,000, of which \$13,600 should be expended, among other things including branches relating to the industrial sciences, "in providing instruction in the principles and methods of teaching;" and Middlebury College obtained an annual appropriation of \$16,000, of which \$13,600 should be expended, in addition to the purpose of establishing and maintaining a department of pedagogy as provided in the Act of 1908, for the further purpose of providing "instruction in forestry and other subjects related to

the industries of Vermont"—a provision broad enough to include every department of agricultural education. By the legislation of 1908, the state was definitely assisting the University of Vermont in providing instruction in branches relating to the industrial arts, yet in 1910 Middlebury College received an appropriation for instruction in forestry and other subjects related to the state's industries. On the other hand, in 1908, the state definitely assisted Middlebury College to establish and maintain a department of pedagogy for a distinctive service to the state, namely, the education and training of high school teachers, yet in 1910 the University of Vermont obtained an appropriation to be expended in providing instruction in the principles and methods of teaching.

The legislature of 1912, by an Act passed February 15, 1913 (No. 83, Acts of 1912), in appropriating money to the state's institutions of higher learning, to some extent avoided duplication, no doubt because the matter of "unnecessary duplication" was specifically mentioned in the joint resolution creating this Commission, previously enacted. The sum of \$26,300 was appropriated to the University of Vermont and State Agricultural College. Of this appropriation, \$13,500 was "for the exclusive use of the College of Medicine," \$4,800 was "for the exclusive use of the College of Agriculture" in the payment of tuition charges of Vermont students, and \$8,000 was "for the exclusive use of the College of Agriculture" to be expended solely for work in agricultural extension. The sum of \$12,800 was appropriated to Middlebury College, of which \$2,400 was allotted to the payment of tuition charges, and \$10,400 in "providing instruction in subjects essential for students preparing to teach in Vermont high schools and academies." The sum of \$20,000 was appropriated to Norwich University to be used "in carrying out the provisions of the charter of said institution through the payment of salaries of its instructional force and suitably providing for additions to and for the maintenance of laboratories and equipment for its work in engineering, in the natural sciences and in physical culture." Yet in these appropriations, it appears that the state is giving Norwich University extensive assistance in its engineering work and at the same time is sustaining the work in engineering at the University of Vermont through the Federal appropriations allotted to that institution by state legislation.

Every institution of learning in the liberal arts necessarily offers courses more or less alike, for example, courses in the languages, mathematics, and the natural, physical and economic sciences. To style this as unnecessary duplication would amount to saying that all but one of such institutions have no reason for existence—a matter to be determined only by time and their own internal development. The Commission construes "unnecessary duplication" to mean competitive effort in technical education in the arts, sciences or professions; and technical education is none the less such although offered as "the stimulus to liberal thought and serviceable effort that is so necessary to true culture and to useful living."

The "Middlebury College Bulletin" for July, 1914, is devoted to an exposition of its Department of Engineering. It announces that two classes, at least, of its

students demand certain courses in engineering: those who intend to pursue a technical education beyond college and those who need such courses for cultural purposes. The engineering courses offered to meet this alleged demand are, in the opinion of the Commission, a clear illustration of unnecessary duplication. Through state legislation the Federal appropriations to land-grant colleges have, in Vermont, for many years been allotted to the University of Vermont and State Agricultural College, whereby there has been developed at Burlington a school of civil, mechanical and electrical engineering which "in the character of the instruction and the opportunity for laboratory work * * * compares well with similar schools of engineering in other institutions." The Bulletin says respecting the engineering department at Middlebury College:

"Such a department does not purport to be, and it should not be misunderstood to attempt the work of, a technical institution or an advanced school of engineering, nor does it assume the character of a college of engineering in a university." And yet the value of its courses in a purely technical education is advocated by the announcement that their graduates "may enter the Junior year of the best technical schools without examination," an arrangement already concluded by Middlebury College with the Massachusetts Institute of Technology, Worcester Polytechnic Institute and Cornell University. In other words this department, which does not purport to be, and should not be misunderstood to attempt the work of, a technical institution, furnishes its students an education equivalent to that given in the first two years of the foremost technical schools in this part of the country. The training offered is clearly that of a technical institution and just as clearly a duplication of the training given at Burlington. It is suggested, however, that duplication can not be predicated upon the state's use of the Federal appropriations, on the ground that such appropriations are not the property of the state but of the institution receiving them, and that the state is a channel merely through which the Federal aid flows. Such a position is untenable. Although the state holds these funds in trust for the purposes named in the Acts of Congress, it nevertheless owns them. The Supreme Court of the United States in *State of Wyoming, ex rel. Wyoming Agricultural College et al. v. Irvine, Treasurer of the State of Wyoming*, 206 U. S. 278, 51 L. ed. 1063, says it is obvious that these appropriations are made to the state, and not to any institutions within the state, and that both the fund and its interest and the annual appropriations are the property of the state, and not of any institution within it.

As long as Middlebury College, by such duplication, engages in a competition with the University of Vermont and State Agricultural College in technical education in the mechanic arts, the Commission believes that such competition may engender a spirit of institutional rivalry that will make inadvisable the education there, at public expense, of the state's secondary-school teachers, for the School of Pedagogy in Middlebury College (discussed elsewhere in this report), even though safeguarded by a close state administration and control, may become so far imbued

with such a spirit as to place its graduates, through their prestige and influence, in command of the secondary schools of the state. Nor should Middlebury College continue its courses in those branches of instruction peculiarly appropriate to education in agriculture, specially the province of the State Agricultural School at Randolph and of the State Agricultural College in the use of the Federal appropriations. The United States Bureau of Education has made the following classification of subjects to be included in instruction in agriculture: (1) Agriculture; (2) Horticulture; (3) Forestry; (4) Agronomy; (5) Animal husbandry; (6) Dairying; (7) Veterinary science; (8) Poultry industry; (9) Apiculture.

If the state is to support courses of instruction for training teachers of agriculture in the University of Vermont and State Agricultural College, as elsewhere recommended, that institution by parity of reasoning should not unjustifiably continue its courses in pedagogy in competition with Middlebury College.

Inasmuch as many forms of duplication are wholly justifiable and necessary, and inasmuch as forms of duplication that are injurious and, therefore, undesirable can sometimes be fairly determined only as the concrete occasion arises, it is only just to the state that no institution receiving aid from the state by way of funds owned by it, either absolutely or in trust, shall undertake work in aid of which such funds are elsewhere being provided, without the knowledge and the full concurrence of the board of education.

These institutions should not be rivals, but co-workers, each doing its own general work in cultural education and non-competing work in technical education.

XIII

THE STATE AND HIGHER EDUCATION

It is made the duty of the Commission to inquire into and determine the several rights, duties, and obligations of the three colleges in the state, and to report thereon with such recommendations as will prevent unnecessary duplication and consequent financial waste. Further than is necessary to the proper performance of this duty, the Commission does not consider it within its province to discuss the question of higher education nor the question of colleges of art, large or small. It wishes to confine its function to the public educational system and conditions of the state, and to the reorganization of the public elementary and secondary schools in such a manner as to result in the establishment of an efficient and comprehensive system of elementary and secondary education for the state, and the means of providing efficient, competent, and a sufficient number of teachers for these schools. Its recommendations are intended to cover this, and also to cover, directly or indirectly, the use of money owned by the state either absolutely or in trust, so far as it is applied by, appropriated to or to the use of, existing colleges, private in character. As to the other work of the colleges, the Commission recommends restrictions only so far as may be reasonably necessary to prevent unjust interference with the use of such state moneys.

From what has been said, it is seen that the Commission bases its recommendations for state aid to institutions of higher learning upon the fact that some special benefit is to be derived by the state in connection with the efficient operation and administration of its public schools, in so doing. The state has made the maintenance of public schools a provision in its Constitution. From the foundation of the state, it has been a steady and governing principle that it was the right and duty of government to provide, at public expense, for the instruction of all the youth in common schools. No such duty is imposed upon the state respecting higher education, nor respecting instructions in institutions of higher learning, not a part of the public school system. Though appropriations may be and are often made by the legislature in aid of such institutions, yet such an appropriation is a gift of the sum appropriated. It is a common saying based upon much good sense, that "a man should be just before he is generous." This applies as well to the state regarding such appropriations. It should require no argument to convince any person of fair mind that the first and all important duty of the state is to perform its full obligation to the common schools before giving money to any institution of higher learning—justice to the youth of the state, as well as the public welfare, demand it. This same principle was stated and endorsed with emphasis by the president of Middlebury College and also by one of the prominent fellows of that institution at a hearing before this Commission. Thus President Thomas said:

"I accept further the principle that the primary and supreme duty of the State in educational matters is to its elementary and secondary schools. The education of the

mass of the people must always be the first concern of the people. Money that is needed for efficient administration of a State educational system and for proper stimulation of local support of both elementary and secondary schools should not be diverted to higher education. The college must not be a competitor for resources that are needed by the little children of Vermont. The proposition to expend upon higher education what is justly required for the lower schools is not only unjustifiable morally and from the standpoint of public policy, but it is against the interest of the college itself, since the college can flourish only on the foundation of efficient general education and broad public prosperity."

Honorable Frank C. Partridge, Fellow of Middlebury College, when delivering an address before the Commission on the same occasion, being asked by the chairman of the Commission whether he stood with President Thomas as to the state's first duty being to the elementary and the secondary schools, answered:

"I have had no question about that. I will go further, I think the duty first is the primary schools. I think if you want to analyze it thoroughly, you must determine first if you have any money left after that for the secondary schools, and after that I think you must determine whether there is any money left for anything else. The lower down you are in the educational field, the more you must look after it. You won't have any secondary schools without primary schools."

It is said, however, in behalf of all three of the institutions of higher learning, that in other states of the Union private institutions of higher learning receive aid from the state and hence there is no good reason why the colleges in Vermont should not receive aid from the state; indeed that the state should continue to treat the colleges within her borders the same as similar institutions are treated in other states. By reason of this argument the Commission has taken pains to ascertain what is being done in this respect in each of the New England states, also in New York, and we present in connection herewith the following tabulated statement showing the total assessed valuation and the appropriations for higher education with the percentage computed in each of the states named:

<i>State</i>	<i>Total Assessed Valuation</i>	<i>Appropriations for Higher Education</i>	<i>Percentage</i>
Vt.	\$ 222,989,343 (1913)	\$ 52,300.00 Univ. Vt. 28,800.00 Mid'y Coll. 20,000.00 Norw. Univ. <hr/> \$100,100.00 (1913-14)	.00044
Conn.	948,339,019 (1911)	\$ 145,787.05 St. Agric. Coll. (1912-13)	.000153
Me.	430,025,462 (1912-13)	\$ 115,000.00 Univ. Me. (1912)	.000267

HIGHER EDUCATION

Mass.	5,479,279.693 (1912) (for 10 yrs. only)	\$ 146,800.00 Agric. Coll. 100,000.00 Mass. Inst. Tech. 50,000.00 Worc. Polyt. Inst.	.0000542
		<hr/> \$ 296,800.00 (1912-13)	
N. H.	398,714,464 (1912-13)	\$ 20,000.00 Dart. Coll. 20,544.88 Agri. Coll.	.000101
		<hr/> \$ 40,544.88 (1912-13)	
R. I.	618,834,569 (1912)	\$ 29,889.63 Agri. Coll. (1911-12)	.0000483
N. Y.	11,131,778,919 (1913)	\$ 943,428.80 Corn. Univ. (Agric.) 70,000.00 Corn. Univ. (Vet.) 71,000.00 Alfred Univ. (Agric. & Ceramics) 42,572.15 St. Law. Univ. (Agric.) 300,000.00 Syr. Univ. (Forestry)	.0000128
		<hr/> \$1,427,000.95 (1912-13)*	

The percentages are only approximate since it is, in general, almost impossible to obtain figures for valuations and appropriations in the same year.

The above tabulated statement of appropriations is believed to include all sums appropriated to colleges in the states named, whether the institutions are in character public or private, and whether under state control or otherwise. In so far, however, as these institutions are public in character and entitled of right to state support, or are under state control, the per cent of Vermont's appropriations, as compared with appropriations to the private institutions of the other states, is materially increased. That a better understanding of the relative per cent appropriated by these states may be had, the Commission has caused the following chart to be made, showing the size of per cent appropriated by Vermont as compared with the per cent appropriated by each one of the other states named. It is hardly necessary to say in this connection that the appropriation made by a state, when compared with appropriations made by other states, is to be adjudged upon the basis of the assessed valuation of the states in which the compared appropriations were made. No other comparison would be fair. What would be a large appropriation for a state of small assessed valuation might be a mere pittance for a state of large assessed valuation, or, to state it in another way, a small appropriation in per cent of a state of large valuation, might amount to a sum so large as to be beyond anything that could possibly be expected from a state of small valuation. Referring to the chart and to the per cent given by each state, marked thereon, it will be seen that Vermont is appropriating nearly 1.7 times the per

*From January 1914 from \$75,000 to \$300,000 is appropriated annually for scholarships.

.0000128



N. Y.

.0000483



N. J.

.0000542



Mass.

.000101



N. H.

.000153



Conn.

.000267



Maine

.00044



Vt.

cent appropriated by Maine, nearly three times the per cent appropriated by Connecticut, more than four times the per cent appropriated by New Hampshire, more than eight times the per cent appropriated by Massachusetts, more than nine times the per cent appropriated by Rhode Island, and more than thirty-four times the per cent appropriated by New York in 1912-13. If we add to \$1,427,000.95, the sum appropriated in those years, \$300,000, the greatest sum appropriated annually for scholarships from January, 1914, it makes total appropriations from January, 1914, \$1,727,000.95. Computing the per cent this sum is of the assessed valuation given for 1913 (and saying nothing about any increase in assessed valuation for the year 1914), it gives .0000155, and the per cent appropriated by Vermont is still more than twenty-eight times the per cent now being appropriated by New York.

With this information in hand together with the knowledge we have concerning the elementary and secondary schools, can there be any reasonable doubt that the institutions of higher learning in this state have been and are receiving more by way of appropriations from the state than in justice to the elementary and the secondary schools they ought to ask or receive? Without discussing the question as to whether appropriations to such institutions without state control can or can not be reasonably justified, they can not be reasonably justified to an extent which is to the injury of those schools established and maintained for the benefit of all of the people of the state. The Commission can not urge too strongly the importance to the public-school children of the state, and consequently the importance to the general welfare of the state, that no appropriations, by way of scholarships or otherwise, be made by the state to the colleges until the elementary and the secondary schools are established and in efficient operation throughout the state, in conformity to the recommendations contained in this report. When these public schools are so established and in efficient operation, if it be then a state policy that state appropriations to private institutions of higher learning are, without state control, reasonably justified—a matter not now requiring consideration—, we may fairly assume that serious objection will not be made to such appropriations to a percentage of the assessed valuation of property in the state, in keeping with the amount of the appropriations made to similar institutions in other states with which comparisons may fairly be made. It should be added, however, that even then there should be no appropriations in the form of scholarships as now assigned. The Commission believes that such scholarships are so objectionable in their tendencies as to leave nothing substantial in their favor. There may be some question as to the advisability of ever making appropriations by way of scholarships, but if so made the assignment of scholarships should be under the control of the board of education and based upon merit and pecuniary need. Very likely in any event justice to the colleges may require that all state aid be not cut off at once, but rather that reasonable opportunity be allowed them in which to arrange their budgets.

XIV

FINANCIAL SUPPORT OF SCHOOLS

I. HISTORY OF STATE SCHOOL FUNDS

By a law passed November 17, 1825, "the amount of the avails accrued to this state by the late Vermont State Bank, the amount of this state's funds accruing from the six per cent on the net profits of the respective banks chartered by this state" and the amount received "from licences to peddlars" were "sequestered and granted to the respective towns in the State, for the benefit of the common schools *and to no other purpose.*" It was further enacted that "the accumulating school fund contemplated shall not be diminished, improved or appropriated to the use of schools, until the amount of principal of said fund shall increase to a sum sufficient to yield an annual profit and interest adequate to defray the current expenses of keeping a good, free, common school in each district in the respective towns, for the period of two months in each and every year."

These funds were at first invested in productive securities, but, in 1833, further loaning was prohibited by the General Assembly. Interest was allowed on the fund and it was "considered as borrowed from the fund" so that on September 10, 1845, the principal and interest amounted to \$234,900.44. On November 5, of the same year, it was covered into the state treasury. In 1832, provision was made for a new capitol building and work on the same was commenced and completed in 1838. For the construction of this building, the state borrowed from the state school fund \$224,000. In 1841 the General Assembly passed a resolution to the effect that no part of the school fund should be loaned so long as "the State may be owing individuals or corporations." The state paid for its new capitol building by repudiating its debt to the school fund.

From 1845 until 1890 the state had no school fund apart from the United States deposit money and the Huntington fund.

At the session of 1890 the legislature enacted a law providing for the first state school tax of five cents on the dollar which was collected upon the list of the polls and ratable estate of the inhabitants of the state for the support of common schools and re-apportioned by the state treasurer among the towns, cities and unorganized towns and gores in proportion to the number of legal schools sustained. This tax was afterward increased to eight cents on the dollar, and from time to time the method of the re-apportionment has been changed.

In 1906 the permanent school fund was created consisting of the sum of \$240,000 returned by the national government to the state in settlement of all Civil War claims, the Huntington fund, the United States deposit money and such other additions as were thereafter made to this fund; and the fund was to be held intact and in reserve as a public school fund. A board of trustees was created in whom was fixed the power of investment and the further power of receiving gifts, bequests or additions to such permanent school fund.

II. APPROPRIATIONS AND DISTRIBUTION OF EXPENSE

In the opinion of the Commission, state school funds should be appropriated as follows:

1. For the purposes of equalizing school opportunities and the assessments for the maintenance of schools.

2. For the purposes of paying all overhead, extraordinary and incidental expenses incurred in the maintenance of the school system.

Neither the parent nor the town should be deprived of or relieved from participating in the education of the child. A fair and equitable distribution of the expense of the child's education should be as follows:

- (a) The parent should feed, clothe and care for the child.

- (b) To a large degree, the town should furnish the school plant, provide for its equipment, maintenance and care, bear the expense of the wage of the teacher and of the cost of books, equipment and supplies.

- (c) The state should pay:

1. For supervision, because the superintendents are the agents of the state in carrying out its educational policy.

2. For the training of the teacher, because the several towns can not perform this service for themselves and because uniformity of training is desirable in order that there may be uniformity in the quality of the teaching.

3. For medical inspection, because diseases and epidemics do not recognize town lines.

4. For the transportation of the child, because this is an unusual and not a common expense, such as teaching and supplies, though frequently necessary to school efficiency, and because it usually falls most heavily upon the town the least able to bear the expense and is one of the features of school administration that can not be handled economically and satisfactorily by the town.

5. For a portion of the net wage of the teacher, in order to insure the employment of trained teachers, and to some degree equalize the expense thereof. This payment should be considered with reference to the net wage of the teacher because the gross wage involves the factor of board which varies in Vermont from nothing to \$6.00 per week.

6. For a large portion of the cost of the employment of teachers for instruction in vocational subjects, because it is a matter of state concern that its inhabitants be self-supporting in life.

7. For incidental expenses, such as supplies and equipment which the town can not adequately furnish itself.

8. For the general means of education, such as educational meetings, summer schools, reports, statistics, courses of study, bulletins, circulars and manuals.

9. For such portion of the expenses of the school system as will enable the several towns to have schools that will, as nearly as possible, be uniform in quality, duration and expense.

In considering these several subjects the Commission recommends:

1. That in lieu of the present eight per cent tax, a state tax of ten per cent be levied upon the grand list of the state for school purposes.

2. That a direct appropriation be made from the state treasury of at least \$450,000.

3. That the income of the permanent school fund be used as now for the purposes of carrying out the educational system.

These three funds brought together give substantially \$750,000. The Commission further recommends that this sum be apportioned at present as follows:

1. For general administration and office purposes, including expenses of the board of education, and the salaries and expenses of the executive officers of the board of education,	\$ 20,000
2. For union supervision,	125,000
3. For vocational education,	10,000
4. For teacher training courses,	40,000
5. For summer schools and educational meetings,	3,000
6. For the transportation of pupils of all classes,	125,000
7. For the instruction of secondary school teachers,	15,000
8. For agricultural extension instruction,	15,000
9. For medical inspection of schools,	7,000
10. For advanced instruction in the several classes of high schools,	60,000
11. For payment of teachers' wages,	100,000
12. For equalizing opportunities and rates of expenditure,	230,000

Some question may arise concerning the appropriation of so large a sum as \$450,000, and it may very properly be stated that a large portion of this sum is already appropriated by the state from its general revenues and was paid during the fiscal year 1913-14, for the following purposes:

Superintendent of Education and Board of Education,	\$ 9,135.71
Normal schools,	20,000.00
Union supervision,	63,350.00
Manual training,	950.00
Teacher training courses,	10,750.00
Summer schools,	1,000.00
Educational meetings,	594.71
University of Vermont and State Agricultural College,	52,300.00
Norwich University,	20,000.00
Middlebury College,	28,800.00
Transportation, year ending June 30, 1913,	20,000.00
General appropriation,	50,000.00
Making a total of	<hr/> \$276,880.42

Thus the increase in the appropriation from the general funds of the state will be only \$175,000. In return for this, the several towns, on the payment of an additional tax of two per cent of the grand list, will receive the benefits which they are already receiving, but these benefits will be increased twofold along the lines of supervision, trained teachers, teachers' wages, vocational education and transportation, and, in addition to this, a fund of \$230,000 will be in the hands of the board of education to aid in equalizing school opportunities and in the reduction of rates of expenditure in those towns where this aid at the present time is sorely needed.

All of which is respectfully submitted this 17th day of July, A. D. 1914.

JOHN H. WATSON
NICHOLAS MURRAY BUTLER
THEO. N. VAIL
PERCIVAL W. CLEMENT
HORACE F. GRAHAM
FRANK H. BROOKS
ELI H. PORTER
JAMES B. ESTEE
ALLISON E. TUTTLE
Commissioners.

GEORGE L. HUNT
Clerk.

INDEX

INDEX

ACADEMIES, as secondary schools, 28

Administration:

- Agencies for, recommended, 7, 55.
- Commissioner of Education, 54.
- History of, 51.
- State Board of Education, 52-55.
- Supervisors, 49.

Age:

- Pupils of junior high schools, 6, 29.
- Pupils of senior high schools, 6, 29.
- School advantages, no bar to, 40.

Agricultural schools:

- Hearing at Burlington respecting, 4.
- Recommendation respecting, 41.

Agriculture:

- Crops, comparative statistics of, 37.
- Experiment station, 95, 96.
- Extension work, 7, 40, 42, 96.
- Federal appropriations for, percent used, 109.
- Instruction in, what is, 131.
- Model farms, 40, 41.
- State Agricultural School, function of, 41, 42.
- Teachers, 7, 40, 118, 119.
- University of Vermont and State Agricultural College, function of, 115-117, 119.
- Use of Federal appropriations, 8, 91.
- Vermont an agricultural state, 17, 37, 39, 114.

Vocational education in, necessary, 37-40.

American Medical Association, 120.

Appropriations:

- Agricultural extension, 7, 40, 96.
- Agricultural teachers, 40, 118.
- Apportionment of, for schools, 139.
- College of Medicine, 121.
- Colleges, 7, 30, 119, 125, 127, 128, 132.
- Duplication in, 128, 129.
- Federal, Act of 1862, conclusion respecting use of, 95.
- Federal, Act of 1890, conclusion respecting use of, 115.
- Federal, Act of 1907, conclusion respecting use of, 115.
- Federal, for agricultural extension, 40, 96.
- Federal, use of by University of Vermont and State Agricultural College, 8, 91.
- Federal, use of, comparative percentages, 111, 112.

Institutions of higher learning, 7, 30, 119, 125, 127, 128, 132.

Middlebury College, 123, 124, 128, 129.

Norwich University, 126, 129.

School funds, recommendation respecting, 138.

State Agricultural School, 7, 41.

State, control of, 54.

University of Vermont and State Agricultural College, 7, 119, 128, 129. [136.

Vermont's, compared with other states, 133-

BOARD of Education:

- Appropriation for, 55.
- Appropriations, control of, 54.
- Duplication, duty respecting, 119, 124, 131.
- Health regulations, 54.
- Instruction outside town, 28.
- Membership, requisites of, 52.
- Powers and duties, 52-54.
- Re-organization of schools, 31.
- Scholarships, 136.
- Staff, 54.
- Teachers of agriculture, 119.
- Teachers for secondary schools, 7, 124.
- Term of office, 55.

Budget of educational expenses, 54.

CARNEGIE Foundation for the Advancement of Teaching:

- Expert assistance by, 3.
- Men employed by, 2, 3.
- Methods of work, 3.
- Report to Commission, 3.

Children:

- Attending elementary schools, 17.
- Attending secondary schools, 18, 22.
- Compulsory attendance, 27.
- Importance of, 17. [30.
- Not reached by secondary schools, 17, 23, 27,

Classification of schools, 13-16, 21, 24, 25, 54.

College of Medicine:

- Appropriations to, 121.
- Attendance, 121.
- Clinical facilities, 121, 122.
- Conclusion respecting, 122.
- Dean Tinkham's statement respecting, 122.
- Relation to University of Vermont and State Agricultural College, 119.

- State's duty to, discussed, 119, 122.
- Standing of, 120-122.
- Supply of practitioners, unnecessary for, 121.
- Colleges:
 - Appropriations compared, Vermont and other states, 133-136.
 - Function of Commission respecting, 4, 122, 132, 136.
 - Relation of secondary schools to, 23, 30, 35, 36.
 - State's duty respecting, 7, 30, 119, 125, 127, 128, 132.
- Commercial subjects, 6, 7, 28, 42.
- Commissioner of Education:
 - Assistants for, 54, 55.
 - Qualifications, 54, 55.
 - Salary, 54, 55.
 - Term of office, 54.
- Compulsory attendance, 27.
- Consolidation of rural schools, 5, 19, 20.
- Constitution:
 - Duties respecting schools imposed by, 5, 9, 11, 14, 15, 30, 31.
 - Rights under, how exercised, 15.
 - Schools, parents' duty respecting, 30.
 - Schools, state's duty respecting, 5, 9, 30, 50, 51, 132.
 - Vocational education, relation to, 35.
- County grammar schools, 11, 34, 62, 73, 74.
- Course of study:
 - Elementary schools, 18, 19.
 - Rural schools, 5, 19, 20.
 - Secondary schools, 22, 23, 25, 28, 29.
- Crops, comparative statistics of, 37.
- Curriculum:
 - Elementary schools, 5, 18, 19, 20.
 - Junior high schools, 6, 28, 29.
 - Senior high schools, 6, 28, 29.
 - State Agricultural School, 41.

DISTRIBUTION of expense, 138

Districts. Specially incorporated, 33.

Domestic science, 6, 7, 28, 35, 42.

Duplication:

- Board of Education, duty of, 119, 124, 131.
- Effect of, 128.
- Illustrated, 41, 43, 128, 129.
- Scope of, 128.
- Unnecessary, bar to state aid, 131.
- Unnecessary, what is, 129.

EDUCATIONAL Commission:

Colleges, function of, respecting, 4, 122, 132, 136.

Conclusions of, not based wholly on Carnegie Report, 4.

Expert assistance for, 2.

Hearings before, 4.

Higher education, function of, respecting, 4, 116, 117, 122, 132, 136.

Institutions visited, 4.

Joint Resolution creating, 1.

Organization of, 2.

Purpose of report, 2, 4, 5, 9, 132.

Work of, 3, 4, 43.

Educational survey:

Authorized by Commission, 2.

Men engaged in, 2.

Methods, 3.

Report to Commission, 3.

Elementary schools:

Attendance, 17, 18.

Curricula, 18, 19, 25, 26.

Instruction in, purpose of, 18, 19.

Location of, 14.

Number required, 16.

Place in the system, 9, 132, 133, 136.

Rural schools, 5, 19, 20.

Rural schools, consolidation of, 19, 20.

School term, 31.

Teachers, certification, 54.

Teachers, number, 43.

Teachers, salary, 47, 138.

Teachers, tenure of position, 47.

Emigration, relation to schools, 36.

Environment, relation to schools, 9, 16, 17, 19, 20, 23, 25, 36, 43.

Equalization of expense, 30, 50, 51, 137, 140.

Expense of schools:

Equalization of, 30, 50, 51, 137, 140.

Parents' duty respecting, 30, 138.

Secondary consideration, 29, 30.

State money, expenditure and control of, 54.

Experiment station, 95, 96, 116.

Extension work in agriculture, 7, 40, 42, 96.

FEDERAL appropriations:

Agriculture, percent used for, 109.

Approval of U. S. government respecting use, 101, 114. [117.

Change in policy, respecting use, looked for,

Extension work, 96.
 State Grange, complaint by, 112.
 Use of, comparative percentages, 111, 112.
 Use of by University of Vermont and State Agricultural College, 91.
 Use of, reports required, 99-101.
 Use of, reports respecting, 102.
 Use of, under Act of 1862, conclusion respecting, 95.
 Use of, under Acts of 1890 and 1907, conclusion respecting, 115. [96.
 Federal extension work in agriculture, 7, 40, 42.
 Financial support, 30, 50, 51, 137, 140.
 Foundation: [70.
 University of Vermont, conclusion respecting,
 University of Vermont and State Agricultural College, conclusion respecting, 86.
 Founder's Day, at University of Vermont and State Agricultural College, 64, 65. [27.
 "Four-and-Two" division of secondary schools,

GENERAL Assembly, communications by Governor, 1
 Glebe-rights, 13. [bly, 1.
 Governor, communications to General Assembly, 11, 62, 73, 74.
 Grammar school lands, investigation respecting, recommended, 34.
 Grammar school lands, quantity and value, 34, 73, 74.

HIGHER education:
 Appropriations compared, Vermont and other states, 133-136.
 Function of Commission respecting, 4, 116, 117, 122, 132, 136.
 Institutions of, all private, 7.
 Institutions of, purpose of report respecting, 5, 132.
 Institutions of, state aid to, 7, 119, 125, 127, 128, 132.
 Scholarships, 136.
 State's duty respecting, 7, 30, 119, 125, 127, 128, 132.
 High schools: see secondary schools.
 Huntington fund, 137.
 Hygiene, 49, 54.

INCREASE of school term, 6, 31
 Institutes, 55.

JUNIOR high schools:
 Curriculum, 6, 28, 29.
 Equipment, 6, 28, 29.
 Number, 27, 28.
 Recommendations respecting, 6, 25, 28, 29.
 Teachers for, 48.
 Vocational education in, 6, 28, 42.

LENGTH of school term, 6, 31
 Lyndonville, Mr. Vail's school visited by Commission, 4.

MANUAL training:
 Generally, 6, 7, 28, 42.
 State Agricultural School, 7, 41, 42.
 Manufacturing, compared with agriculture, 17, 37-40.

Memorial of Elijah Paine, 58.
 Memorial of Ira Allen, 58, 65.

Middlebury College:
 Appropriation for proposed, 124.
 Appropriations, 123, 124, 128, 129.
 Brief by, 4.
 Commission's visit to, 4.
 Duplication in, 128-131.
 Hearing before Commission, 4, 132, 133.
 Teacher-training, 7, 123, 124.

Model farms, 40, 41.
 Morrill Act of 1862: [use of, 8, 95.
 Appropriations under, conclusion respecting
 Morrill Act of 1890:

 Appropriations under, conclusion respecting use of, 8, 115.
 Appropriations under, reports of use of, 102.
 Appropriations under, use of, comparative percentages, 111, 112.
 Appropriations, reports of use required, form of, 99, 100, 101.

Morrill. Senator Justin S., his attitude respecting use of Federal appropriations, 112, 113.

NELSON Act of 1907:
 Appropriations under, conclusion respecting use of, 8, 115.
 Appropriations under, use of, comparative percentages, 111, 112.
 Normal Schools:
 Attendance, 44.
 Commission's visit to, 4.
 Duplication of teacher-training courses, 43.

- Kind required, if any, 48.
- Recommendation respecting, 7, 45.
- Supply of teachers, as source of, 44.
- Norwich University:
 - Appropriations to, 126, 129.
 - Attendance, 126.
 - Brief by, 4.
 - Character—not a state institution, 126.
 - Commission's visit to, 4.
 - Conclusion respecting, 127.
 - Hearing before Commission, 4.
 - Military training, 125.
- P**
 - PREROGATIVE**, 68
 - Publicity, 55.
- R**
 - RANDOLPH** Agricultural School: see State Agricultural School
 - Records and reports, 54.
 - Reports of use of Federal appropriations, 102.
 - Rural schools:
 - Consolidation of, 5, 19, 20.
 - Course of study, 5, 19, 20.
- S**
 - SCHOLARSHIPS**, 136
 - School funds:
 - Appropriated how, 138.
 - Board of Education to control, 54.
 - History of, 13, 137.
 - School lands, 11, 13, 34, 62, 73, 74.
 - School term, 6, 31.
 - Schools:
 - Classification, 13-16, 54.
 - Consolidation, 5, 19, 20.
 - Constitutional requirements respecting, 5, 9, 11, 14, 15, 30, 31.
 - Defects in, reason for, 5.
 - Directors, location by, 14.
 - Division of, 5, 24-29.
 - Expense of, equalized, 30, 50, 51, 137, 140.
 - Instruction, character of recommended, 6.
 - Location, 14, 15, 16.
 - Parents' duty respecting, 30, 138.
 - Relation to colleges, 9, 132, 133, 136.
 - State's duty respecting, 5, 9, 30, 50, 51, 132.
 - Supreme Court decisions respecting, 12.
 - Sustained how, 30, 50, 51, 137, 140.
 - Town system retained, 9.
 - Union of, 20, 49, 54.
 - Vocational education in, 6, 35.

- Secondary schools:
 - Academies as high schools, 28.
 - Attendance, 17, 18, 22, 23, 28.
 - Classification of, 14, 21, 24, 25.
 - Colleges, relation to, 23, 30, 35, 36.
 - Compulsory attendance, 27.
 - Curriculum, 23, 28, 29, 42.
 - Development, 22, 23.
 - Division, change in point, 24-27, 29.
 - "Four-and-Two" division, 27.
 - Function of, 5, 22, 23.
 - History of legislation respecting, 21.
 - Instruction outside town, 13, 28.
 - Junior high schools, 6, 25, 27-29, 42.
 - Relation to elementary schools, 5, 18.
 - Senior high schools, 6, 16, 29, 30.
 - "Six-and-Six" plan, 24-29.
 - Teachers for, training of, 7, 119, 123.
 - Teachers for, agriculture, 7, 119.
 - Teacher-training courses, 46, 47.
- Senior high schools:
 - Agriculture, teachers of, 7, 40, 119.
 - Curriculum, 6, 28, 29.
 - Equipment, 6, 29.
 - Recommendation respecting, 6, 29.
 - Vocational education, 6, 7, 29, 41, 42.
- "Six-and-Six" plan, 24-29.
- Specially incorporated districts, 6, 33.
- State, must be considered as a whole educationally, 9, 30.
- State Agricultural School:
 - Agricultural training, function in, 41, 42.
 - Equipment, 7, 41, 42.
 - Visited by Commission, 4.
 - Instruction in, 41, 42.
 - Teachers, 7, 41.
- State Grange, complaint re use of Federal appropriations, 112.
- Summer schools, 55.
- Supervision:
 - History of, 48.
 - State supervisors, 49.
 - System of, 54.
- Supreme Court, decisions respecting schools, 12.

- T**
 - TEACHERS**:
 - Agriculture, training of, 7, 40, 118, 119.
 - Certification, 54.
 - Importance of, 43, 47.
 - Qualification, 54.

Salary, 47, 138.
 Secondary schools, training of, 7, 119, 123.
 Tenure of position, 47.
 Training courses, history of, 45.
 Training courses, increase recommended, 47.
 Transportation, 19, 20, 138.

UNION of schools;
 Benefits of, 20, 49.
 Recommended compulsory, 49.
 Re-organization of unions, 54.

Union superintendents, 49, 54.

U. S. deposit money, 137.

University of Vermont:
 Buildings as barracks, 78.
 Buildings burned and restored, 78.
 Character—public or private, 56, 76.
 Character—shown by history, 78-80.
 Charter, 58, 75.
 Foundation, conclusion respecting, 70.
 Founder of, 59, 65, 70.
 Founder's Day, 64, 65.
 Lands, grant of, 64, 66, 72.
 Loan from state, 79.
 Private corporation, claimed to be, in 1840, 79.
 State's contribution to foundation, 59.
 Trustees, oath to, effect of, 77.
 United States, dealt with, independent of state, 79.
 Visitatorial power respecting, 75, 76.

University of Vermont and State Agricultural College:
 Agricultural extension, 7, 40, 42, 96. [119.
 Agricultural training, its function in, 115-117,
 Appropriation for, proposed, 119.
 Appropriations to, 128, 129.
 Briefs, 4, 65, 66, 73.
 Character, conclusion respecting, 91.
 Charter, 82.
 Commission's visit to, 4.
 Experiment station, 95, 96, 116.
 Federal appropriations, use of, government approval, 101, 114.
 Federal appropriations, percent used for agriculture, 109.
 Federal appropriations, percentages compared, 111, 112.
 Federal appropriations, reports respecting use, 102. [use, 117.
 Federal appropriations, change looked for in

Federal appropriations, under Act of 1862, conclusion respecting use of, 95.
 Federal appropriations, under Acts of 1890 and 1907, conclusion respecting use of, 115.
 Foundation, conclusion respecting, 86.
 Founder's Day, 64, 65.
 Hearings before Commission, 4, 56, 77, 78, 101, 117.
 Teachers of agriculture, training of, 7, 40, 118, 119.
 Trustees, election by General Assembly, effect of, 88.
 Visitatorial power respecting, 86, 87.
 Vocational training, its place in, 40.

VERMONT:

Agricultural state, 7, 37, 39, 114.
 Agricultural statistics respecting, 37-39.
 An educational unit, 9, 30.
 Appropriations to higher education compared with other states, 133-136.
 Manufacturing and agriculture compared, 38-40.

Vermont Agricultural College:

Character, conclusion respecting, 82.
 Charter, 80.
 Relation to state, 81.
 Report of trustees, 85.
 Visitatorial power, 75, 76, 86, 87.

Vocational Education:

Agriculture, importance of, 37-40.
 Commercial subjects, 6, 7, 28, 42.
 Defined, 35.
 Domestic science, 6, 7, 28, 35, 42.
 Elementary schools, 42.
 Emigration, relation of, 36.
 Extension work in agriculture, 7, 40, 42, 96.
 Junior high schools, 6, 28, 36, 42.
 Manual training, 6, 7, 28, 41, 42.
 Model farms, 40, 41.
 Recommendations respecting, 6, 42.
 Senior high schools, 6, 7, 29, 36, 41, 42.
 State Agricultural School, 41, 42.

NAMES

Allen, Ira, 58, 63, 65, 70.
 Benedict, Robert D., 63.
 Benton, President Guy Potter, 4, 56, 112.
 Blackstone, Sir William, 62.
 Brooks, Frank H., 140.

Butler, Nicholas Murray, 140.
 Chipman, Nathaniel, 11.
 Claxton, Philander P., 19.
 Clement, Percival W., 140.
 Comyns, Lord, 77.
 Dillon, John F., 88.
 Elliott, Professor Edward C., 3.
 Estee, James B., 140.
 Farrington, Professor Edward N., 3.
 Fiske, John, 59.
 Fletcher, Allen M., Governor, 1.
 Furst, Doctor Clyde, 3.
 Goodrich, Professor John Ellsworth, 63.
 Graham, Horace F., 140.
 Hamilton, John, 98.
 Hillegas, Professor Milo B., 3.
 Hunt, George L., 2, 140.
 Kent, Chancellor, 75.
 Kerr, W. J., 94, 95, 98.
 Learned, Doctor William S., 3.
 Leslie, William, 3.
 Lowell, President A. Lawrence, 123.
 Marshall, Chief Justice, 65, 69, 85.
 Meade, Professor G. B., 35.
 Morrill, Justin S., 80, 112, 113.
 Mower, E. C., 4.
 Olshausen, Professor George R., 3.
 Paine, Elijah, 58.
 Partridge, Captain Alden, 125.
 Partridge, Frank C., 4, 133.
 Poland, Judge Luke P., 12.
 Pomeroy, John M., 114.
 Porter, Eli H., 140.
 Potter, Doctor Nathaniel Bowlitch, 3.
 Powers, Chief Justice George M., 4.
 Powers, Judge H. Henry, 90.
 Pritchett, Doctor Henry S., 2.
 Reed, Doctor Alfred Z., 3.
 Roberts, Robert, 4.
 Ross, Chief Judge, 12.
 Rowell, Chief Justice, 11, 90.
 Royce, Chief Judge, 90.
 Sayre, Monell, 3.
 Smith, Treasurer C. P., 4.
 Spooner, President Charles H., 4.
 Stephen, Serjeant, 68.
 Story, Justice, 62, 72, 76.
 Sutherland, Professor W. J., 17.
 Taft, Judge Russell S., 90.
 Thomas, Colonel Fred B., 4.

Thomas, President John M., 4, 123, 132.
 Thompson, W. O., 93, 95, 98.
 Tinkham, Dean Henry C., 4, 122.
 Tuttle, Allison E., 140.
 Vail, Theodore N., 4, 140.
 Veazey, Judge Wheelock G., 90.
 Walker, Judge William H., 90.
 Watson, John H., 140.
 Webster, Daniel, 76.
 Wheeler, Rev. John, 58, 79, 80.

QUOTATIONS AND CITATIONS

Allen, Ira, Memorial of, 58.
 Allen v. McKeen, 1 Sum. 276; 72.
 Bank of U. S. v. Planters' Bank of Georgia, 9 Wheat. 904; 69, 85.
 Benedict, Herbert D., Oration by, 63.
 Benton, President Guy Potter, Address before Commission, 56, 112.
 Blackstone's Commentaries, 62.
 Blair v. Chicago, 201 U. S. 400; 66.
 Board of Education v. Greenebaum & Sons, 39 Ill. 609; 88.
 Carnegie Report:
 Appropriation for teacher training, 47.
 College of Medicine, 122.
 Course of study in elementary schools, 18.
 Curriculum in junior high schools, 29.
 Curriculum in secondary schools, 28, 29.
 Federal appropriations, expenditure of, 109, 110.
 Function of secondary schools, 23.
 Junior high schools, 6.
 Norwich University, 127.
 School attendance, 17, 18.
 Schools, expense of, 30.
 Secondary-school teachers, 124.
 Secondary schools, attendance, 28.
 Senior high schools, 6.
 State Agricultural College, 115.
 Teachers, supply of, 43.
 Union superintendents, 49.
 Vocational education, 36.
 Charter of University of Vermont, 58.
 Constitution of 1777, 10, 56.
 Constitution of 1786, 10, 57.
 Constitution, Revision of 1797, 11.
 Dartmouth College v. Woodward, 4 Wheat. 518, 62, 65, 72.
 Dillion on Municipal Corporations, 88.

- Downing v. Indiana State Board of Agriculture
12 L. R. A. 664; 69, 73, 86.
- Fiske's "The Critical Period of American History", 59.
- Franklin County Grammar School v. Bailey, 62
Vt. 467; 66, 74.
- Goodrich, Professor John Ellsworth. Oration by,
63.
- Guthrie v. Harkness, 199 U. S. 148; 87.
- Hamilton, John. Paper by, 98.
- In the Matter of the Endowed Schools Act,
In the Matter of the St. Leonard,
Shoreditch, Parochical Schools, }
10 Appeal Cases 304; 63, 70.
- In the Matter of Tappan's Appeal, 52 Conn. 412,
114.
- Inland Empire Teachers' Association:
Address before, "Six-and-Six" plan, 26.
- Jacob's Law Dictionary, 68.
- Kent's Commentaries, 73, 75.
- Kerr, W. J., Address by, 94, 95.
- Late Corporations of Latter-Day Saints v. U. S.,
136 U. S. 1; 82.
- Lawrence v. Rutland Railroad Company, 80 Vt.
370; 56.
- Leading Cases in Equity, 113.
- Lowell's Government of England, 123, 124.
- Middlebury College Bulletin, 129, 130.
- National Bureau of Education:
Report of, "Six-and-Six" division, 25.
- Newton v. Board of County Commissioners,
100 U. S. 548; 66.
- Orleans County Grammar School v. Parker,
25 Vt. 696; 73.
- Partridge, Frank C., Address of, before Com-
mission, 133.
- Pomeroy's Equity Jurisprudence, 114.
- Regents of University of Maryland v. Williams,
9 Gill & Johns. 365; 70, 71, 86.
- Report of University of Maine. College of Agri-
culture, 40.
- Scott v. St. Johnsbury Academy, 86 Vt. 172; 91.
- State of Wyoming v. Irvine, 206 U. S. 278; 130.
- Statutes:
Act of October, 1781, re school tax, 61.
Act of October, 1782, re school districts, 61.
Act of March 3, 1787, re Constitution of 1786,
62.
Act of March, 8, 1787, re schools, 62.
Act of November 10, 1802, re land grants, 66.
Act of November, 2, 1810, re land grants, 67.
Act of 1828, re University of Vermont, 78.
Act of 1841, re union schools, 21.
Act of 1844, re central schools, 21.
Act of November 22, 1864, re Vermont Agri-
cultural College, 80.
Act of November 8, 1865, re University of
Vermont and State Agricultural College, 82.
Act of 1867, re central schools, 21.
No. 49, Acts of 1876, re training of teachers,
45.
Act of 1878, re central schools, 21.
Act of Congress, 1887, re experiment stations,
95.
No. 105, Acts of 1892, re officers of state in-
stitutions, 89.
No. 19, Acts of 1894, re instruction outside
the town, 13.
No. 9, Acts of 1898, re teachers, 46.
No. 69, Acts of 1910, re age of pupils, 17.
No. 62, Acts of 1912, re classification of high
schools, 21, 49.
No. 75, Acts of 1912, re union superintendents,
27.
No. 83, Acts of 1912, re duties of Commission
respecting colleges, 2.
No. 84, Acts of 1912, re agricultural exten-
sion, 96.
Act of Congress, May 8, 1914, re agricultural
extension, 96.
Morrill Act of 1862, 91.
Morrill Act of 1890, 96.
Nelson Act of 1907, 97.
Public Statutes, Section 1016, re classifica-
tion of high schools, 21.
Public Statutes, Section 1017, requiring high
schools, 21, 29.
Public Statutes, Section 1021, re classification
of high schools, 21. [17.
Public Statutes, Section 1027, re age of pupils,
Public Statutes, Section 1029, re compulsory
attendance, 27.
Revised Laws, Section 499, 11.
Stephen's Commentaries, 68.
Sutherland, Professor W. J., Address by, 17.
Thomas, President John M., Address of, before
Commission, 132.
Thomas v. Industrial University, 71 Ill. 310; 69.
Thompson, W. O., Address by, 93, 98.
Thompson's History of Vermont, 59, 60.

- Tinkham, Dean Henry C., Address by, re College of Medicine, 122.
- Town of Barre v. School District No. 13 in Barre, 67 Vt. 108; 12.
- Trustees of Caledonia County Grammar School v. Burt, 11 Vt. 632; 73, 74.
- U. S. Bureau of Education, Rulings re land-grant colleges, 99-102, 131.
- U. S. Census Bureau, Statistics, 37.
- U. S. Commissioner of Education:
- Clinical facilities in medical colleges, 121.
 - Consolidation of rural schools, 20.
 - Expenditure of appropriations to land-grant colleges, 110, 111.
 - Instruction in rural schools, 19.
 - Medical colleges, 120.
 - Normal schools, 45.
 - Teachers of agriculture, 118.
 - Secondary schools, 22.
 - Secondary-school teachers, 124.
 - "Six-and-Six" division, 25.
 - Vocational education, 35, 36.
- U. S. Department of Agriculture:
- Bulletin 142, 93, 98.
 - Bulletin 164, 93, 98.
 - Rulings of, 99.
- U. S. Senate, Speech in, re vocational education, 35.
- University of Vermont. Charter of, 58.
- University of Vermont and State Agricultural College v. Baxter's Estate, 42 Vt. 99; 56.
- University of Vermont and State Agricultural College:
- Address before Commission re Federal appropriations, 101.
- Wheeler, Rev. John, Historical discourse by, 58.
- Wheeler v. Lane, 15 Vt. 26; 79.
- Willard v. Pike, 55 Vt. 202; 90.
- Williams v. School District No. 6, in Newfane, 33 Vt. 271; 12.
- Yick Wo v. Hopkins, 118 U. S. 356; 15.

ERRATA

Page 18, line 20; insert “then” after “even”, reading as follows: “even then too large” etc.

Page 48, line 12; insert “and” after “schools”, reading as follows: “urban schools and in the junior high schools.”

Page 65, line 5; insert “in” after “and”, reading “and in the current number”.

Page 75, line 16; “conditions” should read “condition”.

Page 79, line 8; “adjusts” should read “adjust”.

A STUDY OF
EDUCATION IN VERMONT

PREPARED BY THE CARNEGIE FOUNDATION FOR
THE ADVANCEMENT OF TEACHING

AT THE REQUEST OF THE
COMMISSION TO INVESTIGATE THE EDUCATIONAL SYSTEM
AND CONDITIONS OF VERMONT



MONTPELIER, VERMONT

1914

D. B. UPDIKE, THE MERRYMOUNT PRESS, BOSTON

CONTENTS

PART I METHODS AND RESULTS

	PAGE
I. The Reason for the Enquiry	3
II. The Method of the Enquiry	4
III. Conclusions and Recommendations	7

PART II DESCRIPTION AND DISCUSSION

I. The State of Vermont	19
II. The Existing Educational System	25
III. The Elementary Schools	36
IV. The Secondary Schools	63
V. The Training, Certification, and Supply of Teachers	111
VI. Vocational Schools	125
VII. Records and Accounts	134
VIII. The Financial Support of the Public School System	140
IX. The Reorganization of the Agencies for Administration	148
X. The Vermont Colleges and Their Relations to the State	153
XI. The University of Vermont	158
XII. Middlebury College	178
XIII. Norwich University	187
XIV. The History of Vermont Subsidies to Higher Education	194
XV. The Outlook for Higher Education in Vermont	199
XVI. Program of Reorganization	210

PART III : STATISTICS	215
-----------------------	-----

INDEX	233
-------	-----

PART I

METHODS AND RESULTS

I. THE REASON FOR THE ENQUIRY

II. THE METHOD OF THE ENQUIRY

III. CONCLUSIONS AND RECOMMENDATIONS

I

THE REASON FOR THE ENQUIRY

THE Legislature of Vermont, under a joint resolution approved November 19, 1912, provided for a commission to report upon the educational responsibilities of the state. The scope of the work of this commission is defined in the resolution as follows:

WHEREAS, a doubt has arisen in the minds of many of those most intimately related to the secondary and elementary schools of the state as to the efficiency of our common school system, and

WHEREAS, a similar doubt prevails among many friends of higher education regarding the adequacy of the return which the state is getting from its appropriations in aid thereof, and

WHEREAS, His Excellency, the Governor, has recommended in a recent message the appointment of a commission to investigate and report on these matters:

Therefore, it is hereby

RESOLVED BY THE SENATE AND THE HOUSE OF REPRESENTATIVES, That a commission of nine persons, at least two of whom shall be experts in or engaged in educational work, shall be appointed by the Governor to enquire into the entire educational system and condition of this state. This commission shall report at the earliest possible date on the several rights, duties, and obligations of the University of Vermont and State Agricultural College, Middlebury College, and Norwich University, with such recommendations as will prevent unnecessary duplication and consequent financial waste.

RESOLVED, That as soon as practicable after reporting on the institutions of higher learning hereinbefore referred to, the said commission shall recommend, by bill or otherwise, such reorganization of our public elementary and secondary schools, in adjustment to the entire educational system of the state, as will promote the ends of unity, harmony, economy, and efficiency.

RESOLVED, That the members of said commission shall serve without pay, but they shall be paid by the state their necessary expenses on requisitions to be approved by the Governor and chairman of said commission, and the Auditor of Accounts shall draw orders therefor. Said commission may employ expert assistance and include the expense thereof in said requisitions.

To carry out the purposes of the act, the following commission was named by the governor:

JOHN H. WATSON, Chairman, Judge of the Supreme Court of Vermont, Montpelier.

NICHOLAS MURRAY BUTLER, President of Columbia University, New York City.

THEODORE N. VAIL, President of the American Telegraph and Telephone Company, Lyndonville.

PERCIVAL W. CLEMENT, former President of the Rutland Railroad, Rutland.

HORACE F. GRAHAM, State Auditor of Accounts, Montpelier.

FRANK H. BROOKS, President of E. and T. Fairbanks and Company, St. Johnsbury.

ELI H. PORTER, former member of the State Railroad Commission, Wilmington.

JAMES B. ESTEE, Mayor of Montpelier.

ALLISON E. TUTTLE, President of the State Teachers' Association, Bellows Falls.

GEORGE L. HUNT, lawyer, of Montpelier, is clerk of the commission.

At meetings held January 25 and February 12, 1913, the commission considered methods for ascertaining the present educational conditions of the state and for preparing an exhibit of details available for convenient use. It was resolved that the commission should, in addition to the visitations, public hearings, and enquiries conducted by its own members, cause to be made an expert study of the school system, including the higher institutions of learning.

By a resolution adopted February 24, 1913, the commission invited the Carnegie Foundation for the Advancement of Teaching to undertake this study, with such assistance and coöperation as the President of the Foundation might determine to be necessary.

The report which follows is made in response to this invitation.

II

THE METHOD OF THE ENQUIRY

THE most characteristic feature of contemporary economic and civic life in America is the sentiment, widespread throughout the body of citizenship, that the prevailing order no longer suffices. Educational institutions, along with other social agencies, are being subjected to-day to such complex forces of unrest. There is a feeling, whether well founded or not, that the relationship between the common schools and the needs of the communities in which they stand is not of the best. Part of the public, at least, has been taught to believe within the last decade that the public school system is inert and unresponsive to the changing and advancing life of our democratic civilization.

This sentiment — for it is a sentiment rather than a conviction — has found expression in two widely different ways. On the one hand, an effort has been made to render the public schools responsive to what have been assumed to be present day needs, by the addition of a large number of new subjects to the school curriculum; on the other hand, there is going on a cautious endeavor to submit our existing educational system to a critical, scientific examination, with the idea that the conclusions drawn from this examination should form the basis for a wise and economic reorganization of the school system. The school enquiry, or as it is more generally known, the "school survey," represents the latter movement. Surveys have come to be so frequent in educational and civic movements that some doubt has already arisen as to the thoroughness of their procedure and as to the trustworthiness of their results. There can be no question that such studies have in a measure partaken of the very superficiality for which they arraign the school system itself. Nevertheless, it seems clear that the method

of a thoughtful enquiry into existing educational machinery must form the only sound basis for ultimate improvement and advancement, and what is still more significant, it must form the only method by which a clear understanding on the part of the whole people concerning the school system can be secured. For in the last analysis the worth and progress of the public schools depend upon a well-informed public opinion.

The present enquiry represents the first comprehensive effort on the part of a state of the Union to study its school system as a whole from the elementary school to the university. It starts out with the assumption that educational institutions in Vermont are not unrelated agencies, but form parts of one educational system, whether controlled by the state or not.

The enquiry is not in the ordinary sense an investigation. It is not undertaken with the desire to criticize the work or to find the mistakes of any men or set of men. Its attitude toward the past is in the main negative, except in so far as an historical perspective is necessary. What the enquiry has tried to do has been to set before the Educational Commission of Vermont and the people of the state their school system as it exists and is operated to-day, and to give such constructive suggestions as this examination shows to be feasible. It has sought to answer the questions: What is the system of schools to-day trying to do? What are its limitations? and What are its possibilities?

In the prosecution of such an enquiry care has to be taken not only to obtain the necessary data upon which to form a sound judgment, but what is still more difficult, to present the material collected and to offer the conclusions which have been reached in a clear and simple form. Printed reports of educational studies are generally weighted down with so many statistics and with such an amount of detail that the intelligent layman cannot find his way through the mass.

In preparing this report an enormous amount of material has been brought together, nearly all of which is of great interest to the student of education, but printed in a report would, by its very bulk, cloud the important and fundamental issues. It has been sought, therefore, to present the facts without burdening the pages of the report with too great an amount of statistics. The important statistics are given in Part III.

In collecting the necessary information chief reliance has been placed upon extensive and detailed studies on the ground. The effort has been made to minimize the factors of individual judgment and to record observations in objective terms. The aim has not been to make a microscopic examination of the school system; on the contrary, the enquiry has attempted to place before the people of the state those essential facts and relationships that determine the economy and the performance of the school system as a whole. It is necessary in such a study to concentrate upon strategic factors and those that have significance. No outside group of men, however thoroughly they may study the educational problems of a state or of a region,

can transform the school system. That must be done by the agency which is charged with the conduct and oversight of the schools themselves. The best that an outside critic can do is to suggest the form of organization adapted to administer the school system and the general underlying principles upon which it should act. The actual development and improvement of the schools will in the end rest with those who direct and conduct the schools.

Throughout the report the effort is made to avoid both the attitude of flattery and that of mere fault-finding, and to give the result of an honest and sincere study clearly, frankly, and sympathetically.

The most distinctive and important characteristic of the whole work lies in the fact that it is a first-hand study of education in Vermont made from the standpoint of one organism, embracing the whole educational system from elementary school to university. In this respect it is in marked contrast to former studies, in which separate schools or groups of schools have been considered as unrelated agencies. The commission itself is charged with the duty of viewing education in Vermont from this broader standpoint, and those to whom the commission entrusted the duty of this study have tried to keep consistently in mind the fact that there was desired for the state of Vermont a conception of education as a single thing. It is from the consistency of this point of view that the study possesses whatever significance it may have attained.

A word should be said concerning the personnel and methods of work of those responsible for the report. This study was committed to the charge of the Carnegie Foundation. It has occupied for a number of months a large share of the time and energy of the President, the Secretary, and other members of the staff; and other experts in various fields have shared in planning and carrying out the work.

Professor Edward C. Elliott of the University of Wisconsin was at the beginning invited to take part in the study, and to give to the planning of the work the benefit of his experience in such surveys. In addition, Professor Elliott made special studies of the normal schools and the state system of educational administration and expenditure. The detailed examination of the elementary schools was committed to Professor Milo B. Hillegas of Teachers College, Columbia University, and that of the secondary schools to Dr. William S. Learned of the Harvard School of Education. Throughout, the utmost independence has been given to the individual investigator, but all of the material brought together has been submitted to the scrutiny and suggestion of all the men composing this group. The report, therefore, represents not the detached opinions of individuals, but a coördinated whole.

Two of the sections are essentially monographs, that on the elementary schools having been prepared by Dr. Hillegas and that on the secondary schools by Dr. Learned. These two studies, forming as they do the backbone of the educational enquiry, required the presence in the state of these two men for many weeks, and represent the result of months of study.

In addition to the group just mentioned, the Foundation has availed itself wherever possible of expert service in special fields. Professor Edward H. Farrington of the College of Agriculture of the University of Wisconsin made a study of the agricultural college and its relations to the farming industries; Dr. Nathaniel Bowditch Potter, Assistant Professor of Internal Medicine at Columbia University, of the medical school; Dr. George R. Olshausen of the United States Bureau of Standards, of the three engineering schools; Miss L. E. Stearns, Chief of the Traveling Library Department of the Wisconsin Free Library, of library facilities in relation to the public schools; and Mr. William Leslie, public accountant, of the system of accounts and financial statements in use in the school system.

It should be added that, in accordance with the wishes of the commission, an effort was made to complete this study in a shorter time. The experience of those engaged in the work has gone to show that a considerable period of study and of reëxamination is a necessary part of a work of this character. It has seemed impossible to go faster.

Those responsible for this study desire to express their appreciation of the attitude of the governor of the state and of the Educational Commission, as well as of the boards of trustees and presidents of the higher educational institutions, the superintendent of education, the state board of education, and the school officials and teachers. The governor and the commission have simply said to those charged with the enquiry: Find the facts and report them to us; tell us the truth about education in Vermont.

In the same excellent spirit those connected with colleges and schools have lent themselves to the furnishing of all information which either the commission or those engaged in this study have desired. It has been an inspiration to serve a commission which asked only to know the truth; it has been equally pleasant to deal with school officials and teachers so willing to submit their entire educational machinery to an outside critic.

III

CONCLUSIONS AND RECOMMENDATIONS

THE second part of this report describes in detail the condition, operation, educational relations, and the financial support of the various classes of schools and higher institutions in the state of Vermont.

The primary purpose of the study is to place in the hands of the Educational Commission the essential facts which will enable them to form conclusions, to make recommendations, and to propose legislation. The recommendations to the state and to the legislature belong to the commission and not to the group of men associated with the Carnegie Foundation and engaged in this study. It seems, however, desirable to collect into a summary, for the use both of the commission and of the citizens of Ver-

mont, the conclusions to which this united group of students has been led. These results and conclusions are, therefore, here stated in brief form.

A necessary prerequisite to an appreciation of the report is some knowledge of the industrial, social, and financial characteristics of the state. As compared with most states of the American Union, Vermont is small, having a population of some 350,000. Its total annual income is not larger than the sum annually expended by some of the great western states upon their state universities. Vermont is therefore financially unable to enter upon many of the projects of education that a rich and populous state can undertake. Furthermore, the chief industry is agriculture, and the state is likely to remain—at least for some generations—predominantly agricultural. Finally, it is to be remembered that Vermont, in larger measure than other states, has sent its young people away from home into the industrial occupations of other communities. Its population has remained practically stationary for nearly half a century. Its young people have gone to the other New England states, to New York, to the west. With this migration there is no question that the system of education hitherto pursued has had something to do.

One conclusion stands out as the fundamental and important outcome of this study. It is that the chief problem with which the state is concerned is the care and development of its elementary and secondary schools. No one whose vision is true would seek to belittle the problem of higher education, but in rural communities such as prevail in Vermont, the problem of the common school overshadows all others. So overwhelming is its importance that it is not too much to say that if the state develops an efficient and fruitful system of elementary and secondary schools and makes sure of an effective source from which teachers for the elementary and secondary schools may be drawn, the essential problem of education for Vermont is solved.

The detailed studies that follow show that of the nearly 1700 schoolhouses in the state, nearly 1400 are one-room school buildings—nearly all of these rural schools. Of the 83,000 children between the ages of five and seventeen, 57,000 are attending the elementary schools. Few of these children enter the school before six years of age, and practically none remain after sixteen. For these elementary schools there are required about 2400 teachers, whose pay is between \$8 and \$9 weekly. The future of Vermont and her citizens is to be wrought out in these schools and by these teachers.

In a similar way the detailed study elsewhere presented shows that the problem of secondary education in Vermont has the rural situation as its essential factor. To make these two agencies, the elementary school and the secondary school, effective in forming the lives of the children is the fundamental problem which confronts the state.

A study of the detailed reports will make it clear that, notwithstanding the great amount of devotion put into the separate schools, and notwithstanding also the intelligence applied by this or that supervisor, the elementary and secondary schools of

Vermont have for years been conducted upon a curriculum whose tendency is to draw children away from the homes in which they were born. Notwithstanding certain improvements, the school still fails to interest them directly and efficiently in the life about them. This condition is dealt with in the two sections relating to the elementary and secondary schools. These sections carefully discuss the fundamental questions, What is the elementary school for? What sort of school can serve fruitfully and efficiently the aspirations, the needs, and the vocational wants of a rural population? Whether the answers to these questions have been completely worked out or not, it seems clear that at least four things must be done in order to bring the elementary and secondary school system of Vermont to the point where, as an agency of civilization, it will meet the requirements of its people.

First, there must be adopted in the elementary school, and later in the high school, a course of study related to the life of the child. This does not mean that the strong intellectual motive of the elementary school must be abandoned. The value of studies like the mother tongue and elementary mathematics can never be questioned, but it is clear that the domination of the college and of preparation for college has had an undue effect upon the courses of study and the methods of instruction even in the elementary schools, ninety-five per cent of whose children are never to enter college. The difficulty arises partly out of the fundamental conception of education and partly out of a failure to accomplish practically the result aimed at. That human being is educated who has been so trained as to make the best out of the place in life in which he finds himself, taking into account his full capacity—spiritual, intellectual, economic. Education is therefore a relative, not an absolute term. The school as the agency of education is founded upon this conception, but traditional school methods tend constantly to obscure it and to harden into specifics unrelated to the life experience of the children. As a minimum the school should do at least three things for the child—teach him self-discipline, teach him to think, and strengthen his relations to the social and industrial interests of his community. It is not too much to say that not alone in Vermont, but throughout our states, in the country-side schools the children are put through the grades under a régime which gives them little self-discipline, dulls their minds with artificial repetitions and routine tasks, and, so far as it educates them at all, educates them away from the life in which they have grown up. Any form of school that weakens the child's interest in the life of his community is deficient in the elemental requisite of the school as an agency of civilization. Something is radically wrong with a school in an agricultural community that develops motormen, stenographers, and typewriters, and fails to develop farmers, dairymen, and gardeners. A course of study prepared with the view of correcting this condition is the first step in reform.

Secondly, there should be provided for the school system of Vermont an educational administration that shall supervise the schools as a whole, and that shall bring to every high school and to every elementary school genuine, sympathetic educational

advice. It has been pathetic to see the eagerness with which the rural school teacher reaches out for educational help. One's respect for womankind (the typical rural teacher is a young woman of twenty-two or twenty-three) and one's respect for the rural school deepen when one sees the devotion, the energy, and oftentimes the great natural teaching ability that are displayed by a rural elementary school teacher. Any system of educational administration that is to be successful must provide the means by which these isolated teachers may be visited by experts who can sympathetically, intelligently, and skilfully help them to correct mistakes and to strengthen their own good qualities. This means adequate administrative organization at the top.

In the third place, and equally necessary, is the condition that the educational administration, whatever it may be, which is to scrutinize, to assist, and to inspire, shall be free from political entanglement. In Vermont, as in all other states, education is to-day mingled with local politics. The unique political organization of the state, under which each town has equal representation in the House of Representatives, lends itself to such a confusion. It is a part of human nature that under such circumstances the local representative will interfere either for his own interest or for the supposed interest of the schools in his region. A form of administration must be devised under which the inspection and scrutiny and development of the schools shall be independent of politics, and this is no less in the interest of those who hold office than in the interest of the schools and of the scholars. In many instances—perhaps in most instances—the intentions of the political representative who interferes are good. The difficulty is that whatever his intentions are, he is almost sure to interfere from the local and personal point of view, and the success of the administration depends upon delivering the school system from local and personal interference. Freedom from political pressure must be had before the school can do its work with an eye single to the good of all the people of its region.

Finally, agencies must be provided by which the requisite number of trained teachers can be obtained for the elementary schools—teachers who shall have had some training not only in arithmetic and in geography and in English, but shall have had a training also in the social point of view from which they must approach their work. The future of Vermont lies in the hands of these teachers, and no single act that the state government can perform is more important than that which seeks to provide the means for training in the right way an adequate supply of teachers for the elementary rural schools. As a practical matter this means that a twenty-two-year-old young woman, paid at present at the low rate of about eight and a half dollars a week, must be fitted for this task, and that her education for the teacher's calling must be had within easy reach of her home.

In the sections on elementary, secondary, and normal schools, plans are outlined for the training of a large number of elementary school teachers. Experience shows that for the next generation, at least, the school teacher is to be the country girl of the neighborhood, and that she must obtain a considerable part of her preliminary

education and her training as a teacher near her home. The country girl transplanted to a city and given a college education seldom comes back to the country school. In time, there will be needed, doubtless, an institution specifically devoted to the training of teachers. It is pointed out elsewhere that neither of the existing normal schools is fitted to answer this purpose. It will be found wise to give up both of these institutions as soon as may be, and to leave to the state board of education to suggest later the form of teachers' training institution that is to supplement the work of the secondary school in the training of teachers.

It may be added that the teachers necessary for the secondary schools are already supplied in sufficient numbers by the colleges, but the examination that has been made shows that the quality of these teachers, so far as their knowledge of theoretical and practical teaching is concerned, leaves much to be desired. It is clear that if the colleges are to supply a teacher equal to the work of the secondary school, they must give these teachers a far more practical training in teaching than has hitherto been the case.

As a part of elementary and secondary instruction there should be included the gradual development of vocational facilities. The chief industry in Vermont to-day is agriculture, and while manufacturing is also making strides, it may fairly be assumed that for many years to come agriculture will remain the chief vocation of its citizens, and the development gradually of a sufficient number of trade schools or courses in agriculture should be a part of the school program. Such schools will naturally form a part of the regular system of schools, and their development will be a part of the work of the board of education and its experts, working in unison with the towns.

Here, then, are the fundamental things which this study points out as the necessary steps to an educational program which shall educate the sons and daughters of Vermont for service in Vermont, not for migration; which shall turn their faces toward the duties and opportunities of their own homes rather than toward the more tempting, but more illusory, ventures of a city. These are, first of all, a course of study in the elementary and secondary school having relation to the life, the aspirations, the needs of the pupils; second, an educational supervision of the whole system of public education that shall be able to give wise counsel, to correct mistakes including its own, to infuse a spirit of devotion and of serious thinking; third, an educational administration that shall be free from political pressure, independent of local politics, able to deal with the schools from the standpoint of education only, not from the standpoint of the interests of an individual or of a locality; and finally, agencies whose specific work shall be the training of the elementary school teacher,—a training that shall bring out the significance of that work, that shall breathe into it an ever increasing amount of enthusiasm and appreciation, and that in due time will bring to the efficient teacher a greater security, a true career, and a better financial reward. Under such a régime the teacher would in time come to be a member of an honored profession, not a hired man or woman.

Logically, the matter of administration must be met first. What form of organization is adapted to undertake such a supervision of the schools, to furnish expert advice, to develop a curriculum which shall be fruitful, and to train, direct, and aid the teachers themselves?

All problems of education resolve themselves in the last analysis to the process of bringing an immature mind into contact with a mind which is trained, with a spirit which is sympathetic, with a faculty which is critical, but kindly. The problem of the educational supervision of a system of schools consists in providing a sufficient body of well-trained men and women at the top, and in giving to them the chance to work, unhampered by ulterior and outside interests, with the teachers whom they desire to help.

Such an organization would consist of a commissioner of education and a competent staff of assistants, who are experts in various fields, and are in constant touch with the superintendents and with the teachers themselves. Without giving details elsewhere elaborated, such an organization would be able to bring to each school and to each teacher as large a measure of helpful advice, of criticism, and of encouragement as the abilities of its members could supply.

To protect such an organization and to make it independent of politics, the head of the educational system should be the executive officer of a small board, which should consist of public-spirited citizens serving without salary and acting as the advisers and helpers of the educational head of the system. The board should be a lay board, not a board of educational experts, and no man should have a place upon it who is directly concerned or interested in any school or educational institution of the state. The function of such a board is not to furnish expert advice; it is to furnish sound counsel and to stand as the protector of the whole school system against interference. It is its duty to see that the head of the school system and all others associated with it are working in the true spirit of education, not from any other motive. Some such organization would be competent to deal with the problem of education as a whole, not piecemeal; as an organization, not as unrelated principals and teachers. To-day one sees everywhere in the world the results of efficient organization. Organization can be carried so far that it limits personal initiative and individual development. In America, however, all our tendencies are in the other direction. We ignore the results of good organization and affect a belief that Americans, untrained and unorganized, are able to compete with the best training and the most effective organization. Such an organization as is here suggested would make for efficiency at no loss of individual freedom.

So far, therefore, as the results of this study concern the general public school system of Vermont, they are contained in the recommendation: Establish a competent educational administration; free it from political interference; give it a free hand to work out a course of study that shall meet the people's needs, to train teachers who are able to deal with its life, and to develop those vocational schools which may

minister most directly to the opportunities which offer themselves to the Vermont boy and the Vermont girl.

The situation that exists in higher education in the state is likewise dealt with in detail in the sections referring to the separate institutions of higher learning which participate in the state subsidy. Briefly stated, there are three institutions that for years have been obtaining from the state treasury larger or smaller appropriations. In recent years these sums have grown rapidly, until at present the three colleges are receiving from the state something over \$100,000 annually. In addition, the state receives from the federal government for educational purposes \$88,000.

Elsewhere in the report the process through which this situation has been brought about is fully described. Beginning thirty years ago with a small appropriation to a single institution, first one and then another of these colleges has successfully applied to the legislature for a share in the state's revenue. The increase of the appropriation by the friends of one has been a signal for an increase in the appropriation for the others, and by a perfectly natural process the three institutions have been led into a rivalry alike harmful to them, to the state, and to education. The struggle for the college appropriations is more or less intimately connected with all other legislation. Many abuses have crept in to help out the plea for such appropriations or to justify it. The subsidizing of students by scholarships, some of them to be conferred by members of the senate, is particularly to be regretted. Such subsidies to students are nearly always unwise, and if given at all, they ought to be open to students under some fair system of competition, and should entitle the holder to go not to a particular institution, but to any institution that he may choose. The subsidizing of students to go to college is at best of doubtful wisdom. The opportunities for education in this country are so numerous that the ambitious student with energy and courage can find his way through college by his own efforts. Whatever assistance is given should be under conditions carefully planned to safeguard the integrity and self-respect of the student. Scholarship aid should be a loan to be repaid, not a free gift. Any system of scholarships that selects a few beneficiaries and demands no return from them results inevitably in tempting into college youths who ought to find their life training elsewhere, a result alike harmful to the student and to the college. This is an entirely different matter from providing free education for all of the people.

The existing relation of the state to these colleges ought to cease. As is elsewhere fully pointed out, it is demoralizing alike to the political interests of the state, to the institutions themselves, and to education. In saying all of this no criticism is aimed at those responsible for the present policy of the three colleges. They inherited a situation; they did not make it. A man called to the presidency of a college is first of all pledged to support the development of his institution. It is not for him to decide the question whether the state should give money to higher education; that is a question for the law-makers. There is no gain to be had in asking at whose door is to be laid the responsibility for the condition that exists. It is plainly intolerable,

and the plain duty of the legislature is to end it. The question is not what has been going on in the last thirty years, but what ought to be the policy of the state of Vermont toward education in the future? Our profound conviction is that the state ought first of all to face its duty toward that fundamental education which involves the interests of all citizens. It should appropriate no money whatsoever to higher education until its duty toward the public schools has been fully met. In our judgment, the cause of higher education in Vermont would not suffer if it received no state aid in the future.

There are only two consistent policies that a state can pursue toward institutions of higher education. It can give its support entirely to the elementary and secondary school work and leave higher education to be supported by public philanthropy. This is the situation in most of the New England states. It is clear-cut; it is consistent; it is defensible both on the ground of public policy and of education. The other attitude is that assumed by the states of the central west, of the far west, and of the south; namely, that higher education is likewise a function of the state and is entitled to state support, but that the state will appropriate money to no institution that it does not own and control. This policy is also clear-cut and defensible, both educationally and on the ground of a wise public policy.

For Vermont the adoption of this second policy is encumbered with evident difficulties; Vermont cannot possibly support a state university that seeks to cover the ordinary field of undergraduate and professional instruction. It is no burden for states like California, Illinois, Minnesota, or Wisconsin to appropriate \$2,000,000 or even \$5,000,000 annually to their state universities. The entire annual income of the state of Vermont is but little more than the sum which each of these states gives annually to its university. The most that the state of Vermont could possibly do, if it selected one of these subsidized institutions to become its state university, would be to help out the resources derived from the friends of education and of the institution itself for the development of certain restricted fields of education which were deemed especially important to the state. Under such circumstances, however, it is fairly certain that state aid would check and eventually dry up the springs of private giving, and prove in the end an embarrassment rather than a help to higher education.

Before any such policy can be adopted or such appropriation made, the question must be answered: Has Vermont any money to spend at this time on higher education, in view of its obligations and its needs in the fundamental elementary education of the great body of children? With still more emphasis it may be asked, Can it afford to subsidize two rival schools of engineering, two schools of education, or a medical school in which last year's entering class contained three Vermont students?

To those who have been engaged in this study it seems clear that at the present time Vermont needs all its money for the more important, the more vital, the more direct service of its public school system. It is also by no means certain that the withdrawal of state aid from the three colleges that have hitherto been subsidized

may not in the long run be the best possible thing that could happen for them. Any other decision is likely to perpetuate the unfortunate rivalry that now exists. No matter upon what grounds a privately endowed institution is subsidized, no matter how restricted the field to which the appropriation might seem to apply, just so long as the state of Vermont subsidizes these three institutions, education and politics in Vermont will be inextricably mingled, and unprofitable duplication will continue. There is no way in which the situation can be ended once for all except for the state either to adopt one of these institutions as its own, to be absolutely owned and controlled by it, or else to leave higher education to those public-spirited citizens who, in all the states of our Union, have come forward so promptly and so patriotically for its support. Every consideration of the larger interests of Vermont points out the latter of these policies as the right one to adopt. The duty of the state in this matter and of those charged with legislating for it seems to us clear and unequivocal.

The conclusions that have been reached may be resolved into the following recommendations:

1. The recognition by the state of the reorganization of elementary and secondary education, including vocational training, as its immediate and supreme duty.
2. The organization of the office of a commissioner of education upon a basis competent to furnish expert supervision for the public school system. This involves a small lay board serving without salary, and salaries for educational experts of a character to secure the ablest men and women. The details of this organization are given in Section IX of Part II.
3. The problem of revision of the course of study, the establishment of agencies for training teachers, and other administrative details to be worked out by this board and its experts.
4. The State Agricultural College to receive a larger proportion of the generous annual appropriation to the state from the federal government and to be developed along lines calculated to make a fruitful connection between the Agricultural College and the industries of farming, dairying, gardening, stock and poultry raising, and fruit culture.
5. Subsidies to higher education should cease, the colleges being given a reasonable time in which to rearrange their budgets.

The practical question remains, What would be the cost of the educational system that is recommended?

In subsequent sections will be found such details as are preliminary to an answer to this question. The actual details must be gradually worked out by the board of education and its officers. No such organization can be built up in a day or a year, and no outside agency can do more than indicate the form of the organization and the general principles which should guide it. No system of schools is ever to be brought to a high order of educational efficiency by the formula of an outsider. Educational salvation is not so easy as this. Each state must work out its own salvation through

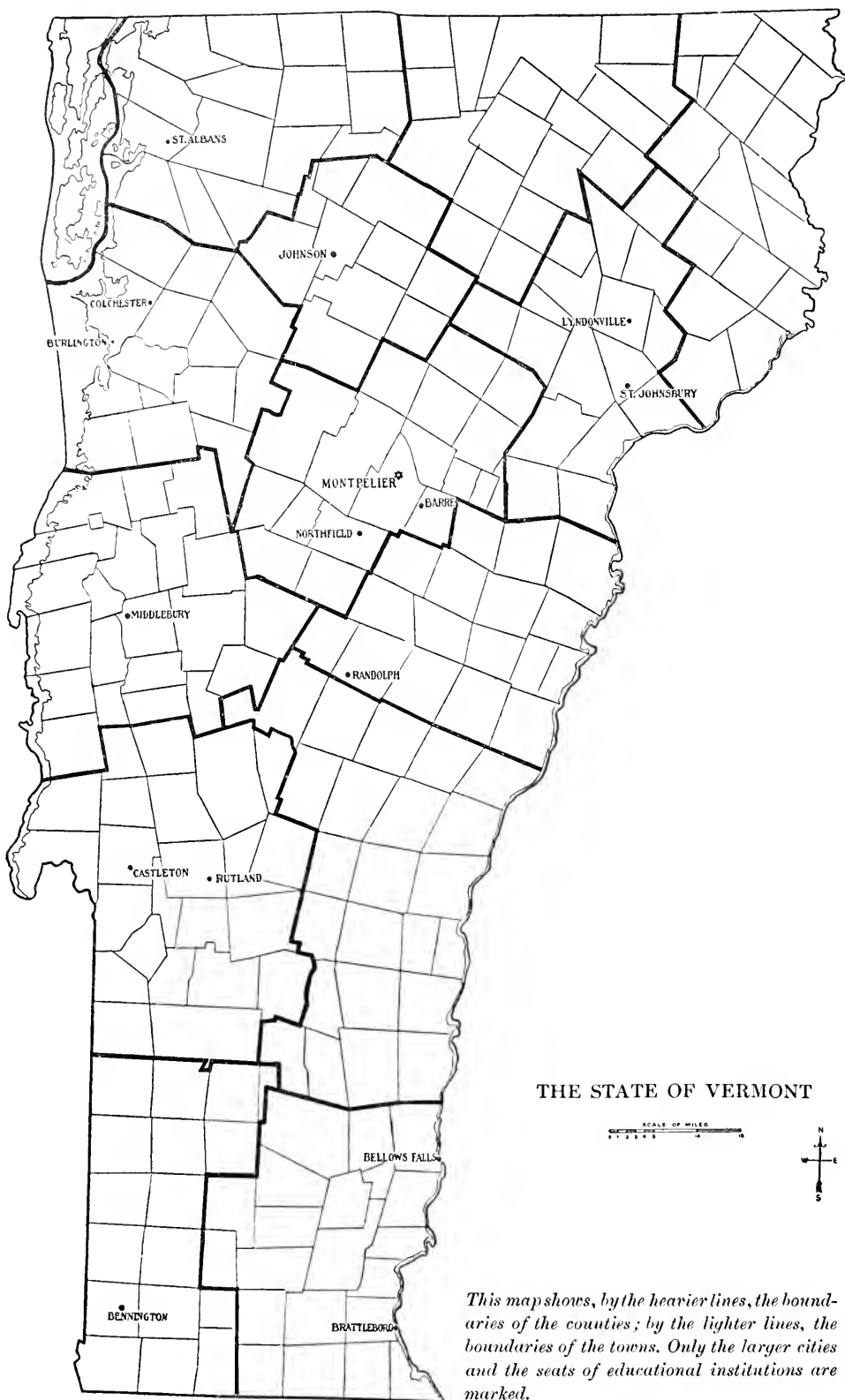
its adopted agencies. The most that can be done by the friendliest critic is to indicate the form of organization that experience has tested and the path that has led to educational progress.

Stated in its briefest form, the financial situation is this: Vermont is spending upon its schools at the rate of \$1,895,000 a year. Of this sum about \$1,400,000 comes directly from the local communities, and about half a million is contributed by the state; it is in virtue of this state aid, touching every public school in every community, that the state is in position to exert supervision and scrutiny over the whole system. In the expenditure of this vast sum of nearly two millions of dollars, less than eight thousand dollars—four tenths of one per cent—has been devoted to supervision at the top. A meagre addition of \$7000 was made in 1913. The state superintendent has been given neither the organization, nor the power, nor the means for effective oversight. It is a matter of simple business judgment that an organization spending two millions of dollars a year cannot be run effectively upon such a basis. It will pay a state as surely as it will pay a business corporation to invest in constructive thinking at the top, and the time has come when the indispensable condition for progress is the inauguration of an educational administrative agency equal to the task. This the state alone can do.

Of the \$525,000 now annually expended on education by the state government, something more than \$100,000 goes to college subsidies, and some \$20,000 to the present ineffective normal schools. If the state will divert these two sums to the great problem of public education in the manner suggested, it will have sufficient means to inaugurate an adequate administration and to develop a training-school for elementary teachers to supplement the work of the high schools. There are other items of expenditure which a wise administration will be able to reduce. In a word, the state of Vermont through its state government and its towns is spending to-day enough money to inaugurate such a system as is here recommended, if only these moneys are devoted intelligently to that purpose.

PART II
DESCRIPTION AND DISCUSSION

- I. THE STATE OF VERMONT
- II. THE EXISTING EDUCATIONAL SYSTEM
- III. THE ELEMENTARY SCHOOLS
- IV. THE SECONDARY SCHOOLS
- V. THE TRAINING OF TEACHERS
- VI. VOCATIONAL SCHOOLS
- VII. RECORDS AND ACCOUNTS
- VIII. THE FINANCIAL SUPPORT OF THE PUBLIC SCHOOL SYSTEM
- IX. THE REORGANIZATION OF THE AGENCIES FOR ADMINISTRATION
- X. THE VERMONT COLLEGES AND THEIR RELATIONS TO THE STATE
- XI. THE UNIVERSITY OF VERMONT
- XII. MIDDLEBURY COLLEGE
- XIII. NORWICH UNIVERSITY
- XIV. THE HISTORY OF VERMONT SUBSIDIES TO HIGHER EDUCATION
- XV. THE OUTLOOK FOR HIGHER EDUCATION IN VERMONT



THE STATE OF VERMONT

SCALE OF MILES
0 1 2 3 4 5 6 7 8 9 10



This map shows, by the heavier lines, the boundaries of the counties; by the lighter lines, the boundaries of the towns. Only the larger cities and the seats of educational institutions are marked.

I

THE STATE OF VERMONT

THE state of Vermont is in shape a trapezoid, with its longer dimension north and south. The western side is the boundary between Vermont and New York, the eastern side follows the Connecticut River for some one hundred and fifty miles, the north side, some ninety miles in length, is the boundary line of Canada, and the south side, forty-three miles long, joins the northwest corner of Massachusetts. Within these four approximately straight lines lies an area of 9564 square miles, a little more than that of either Massachusetts or Wales, and somewhat less than that of Belgium. While possessing no peaks equal to those of the neighboring White Mountains, Vermont is distinctly mountainous, the mean elevation being 1000 feet above the sea. The state is traversed in its entire length, a little to west of the centre, by the Green Mountains, which have a crest line more than 2000 feet high, with several summits exceeding 4000 feet. West of these, the Taconic Mountains run in a nearly parallel range from the southern border almost to the middle of the state, rising in very irregular masses to between 1500 and 2000 feet. North of the Taconic Mountains a series of broken uplands slope down to the broad, irregular valley whose bottom is covered by Lake Champlain, the water of which, expanding eventually to a breadth of eleven miles, separates Vermont from New York for one hundred and thirty miles. Up this valley, long the highway of English and French armies, the first settlers penetrated.

The winters are long and snowy, the summers so cool as to attract large numbers of vacation visitors. The central mountainous region is naturally the coldest, the region surrounding Lake Champlain being somewhat milder than the valley of the Connecticut. Eighty-five inches of snow is the average annually for the entire state; the rainfall is abundant.

The soil on the higher elevations is stony, but cultivation can be carried well up the mountain slopes. Under cultivation, the land is highly productive, especially in the valleys and on the lower hills. Vermont was once heavily forested, and although the white pine is no longer commercially important, the woodland area was estimated in 1890 as still covering 43 per cent of the entire state.

The inhabitants of Vermont number, according to the federal census of 1910, 355,956 persons. This gives a density of 39 individuals to the square mile, Vermont standing exactly midway among the states of the Union in this respect, and being more thinly settled than any country of Europe except Norway. The population is almost evenly divided between the rural and urban dwellers, if the federal classification of urban localities as places containing 2500 inhabitants is adopted.¹ There are no large cities; Burlington, on Lake Champlain, containing 20,000 persons, and nine other cities and towns having between 5000 and 15,000 inhabitants each.²

¹ Urban, 168,943; rural, 187,013.

² Burlington, 20,468; Rutland, 13,546; Barre, 10,734; Bennington, 8698; St. Johnsbury, 8098; Montpelier, 7856; Brattleboro, 7541; Colchester, 6450; St. Albans, 6381; Bellows Falls, 6207.

The population by successive census enumerations is as follows :

1790	85,425	1860	315,098
1800	154,465	1870	330,551
1810	217,895	1880	332,286
1820	235,966	1890	332,422
1830	280,652	1900	343,641
1840	291,948	1910	355,956
1850	314,120		

It will be seen that the population increased rapidly until 1830, when, with the emigration to the new western lands, the rate of increase became small, until in 1870 Vermont practically attained a stationary population.

The growth that has occurred since 1840 has been in the ten cities and towns that contain over five thousand population, the increase between 1900 and 1910 being for urban dwellers 13.8 per cent, while for the state at large it was only 3.6 per cent.

This difference of increase has produced a decided geographical shifting of population within the state, from the southern to the northern portion, where the forests, water power, and mineral resources afford more abundant support. At the end of the eighteenth century¹ two counties on the Connecticut River, Windham and Windsor, in which most of the early settlements were made, contained one-third of all the inhabitants of the state; if to these two counties those of Rutland and Bennington were added, southern Vermont possessed two-thirds of the entire population. In the twentieth century² this southern half contained little more than a third of the state's population, the counties of Windham and Windsor having shrunk to a sixth. That is, in a little over a century³ the southern counties have only doubled in numbers, while those north of them have increased nearly tenfold.

This shift of population has been not only northward, but also westward. The entire five counties which touch the Connecticut River,⁴ in which agriculture predominates, have actually declined in population.⁵ The state has maintained its numbers through the development of manufacturing in the western counties and of the quarrying interest in those situated midland.

The phenomenon of a stationary population in Vermont is due primarily to the extent to which the state has given of her people to the rest of the Union. By 1850 38.6 per cent of native Vermonters resided in other states; fifty years later the continental United States contained 40.4 per cent of those born in Vermont who had emigrated beyond the state. The difference between the periods lies in the fact that at the later date a greatly increased proportion of the Vermont emigrants were to be found elsewhere in New England; in the middle of the nineteenth century the Vermonter went wider afield.

This heavy emigration of the native born has been, of course, somewhat counter-

¹ Census of 1790.

² Census of 1910.

³ From 1790 to 1900.

⁴ From south to north : Windham, Windsor, Orange, Caledonia, and Essex.

⁵ From 122,798 in 1850 to 112,731 in 1910.

balanced by a participation in the waves of immigration into the United States from foreign countries, but in a smaller degree in Vermont than in other states except those in the south. The census of 1790 showed that 98 per cent of the people of Vermont were of Anglo-Saxon origin;¹ in 1900 three-quarters of the population were still natives of the state, and in 1910 86 per cent were natives of the United States, a condition showing little alteration since 1850.² The countries whence the foreign born came, had, however, undergone a change in the intervening fifty years. At the middle of the nineteenth century half the Vermont residents born outside of the Union were natives of Ireland; most of the remainder were English Canadians. By 1900 the Irish had declined one-half, the English Canadians had given place to French Canadians, and a group of nationalities, Italian, Bohemian, Slavic, Scandinavian, Portuguese, unknown fifty years earlier, were appreciably represented. Vermont, however, remains to-day overwhelmingly an indigenous community of English-speaking people.

Partly owing to the fact that when the native of Vermont leaves his state he does so in early youth, and partly owing to the curious tendency of a stationary group of any kind to show an increasing average age, the state shows an interesting advance in the age of the population. In 1850 out of every thousand inhabitants there were 164 persons above fifty years old; in 1900 there were 272. At the end of the half century only 345 more persons could be found in the state under fifty than were there at the beginning; the entire increase in population in that length of time had taken place among individuals above middle age. Had the same thing held true for the entire country, the census of 1910 would have shown that the United States contained, instead of ten million persons over fifty years old, sixteen millions who had passed that point. The emigration from Vermont must have been largely a family emigration, or latterly comprising many young women going to large cities to earn a living, for the census of 1910 showed the population still about equally divided between the sexes.

While during the last half century the other New England states have been changing rapidly into industrial communities, Vermont still remains predominantly agricultural, more of her population deriving their support from agriculture than from any other general occupation,³ there being ninety-two farms to every one thousand inhabitants and 409 farms to every thousand families.⁴ The average acreage of the Vermont farms is $142\frac{2}{3}$ acres, and seven-eighths of them are operated by their owners directly or through managers; only one-seventh are let out to tenants.⁵

¹ 81,200 being of English and 2600 of Scotch descent.

² In 1850 10 per cent were foreign born as against 13 per cent in 1900. The 1910 figures for this and a number of the following topics are not yet available.

³ The statistics for 1900 were: agriculture, 49,820; manufacturing, 36,180; trade and transportation, 18,889; professional service, 7016. Manufacturing had 38,580 in 1909.

⁴ In Iowa, generally recognized as decidedly an agricultural community, in 1900, there were 475 farms for every one thousand inhabitants. Iowa was the one state in the Union which by the census of 1910 showed a decrease in population.

⁵ The 1910 statistics are: acres of farm land, 4,663,577; improved acreage, 1,633,695; number of farms, 32,709; num-

For more than half of the farms¹ the principal source of income is dairying, the value of the dairy industry reaching in 1909 to \$11,501,577 a year, making it the largest single industry in Vermont. On about one-sixth of the farms² live stock is the principal source of income, and on one-thirteenth of them³ the proceeds from the sale of hay and grain. The cereal crop is of secondary importance, the largest single cereal crop being oats, which in 1910 amounted to 2,141,357 bushels.⁴

Textile manufactures were introduced into Vermont later than in the rest of New England, and still are surpassed in importance by those manufacturing interests connected with the lumber industry, although the relative position of the two kinds of manufacturing shows signs of a future reversal, as the yield of the Vermont forests decreases, and as the excellent water power that exists in many localities throughout the state is utilized. In 1909 the value of the textile product was more than \$6,250,000, and the value of the lumber industries, including that of paper-making and wood-pulp, was \$12,800,000.⁵

A considerable proportion of the wealth of Vermont is due to mines, whose products in 1911 sold for \$8,434,576. The largest item in this budget is that derived from the quarries of the Taconic Mountains, whose marbles, ranging from Carrara white to various shades of blue, green, yellow, and pink, gleam from the walls of most public structures in the United States, Vermont in 1908 supplying more marbles than all other states combined, or even than Italy itself. The value in 1911 of the marble was \$3,349,930;⁶ of the Vermont granite, upon which the city of Barre is entirely dependent, \$2,730,719; and of the slate production, \$1,624,941.

The state possesses much accumulated wealth. In few communities is the general body of citizens so free from want.

Vermont is well supplied with railroad transportation, the Boston and Maine system paralleling the banks of the Connecticut River and the New York Central system running up the western section to the Canadian line, while both of these systems and the Central Vermont and the Grand Trunk of Canada run east and west through the mountains. Vermont thus has outlets for its products through New York, Boston, and Portland, and through St. John and Montreal. During seven months of each year there is also communication by water, Lake Champlain being connected by the Champlain Canal with the Hudson and by the Chambly Canal with the St. Lawrence. Within the last few years the public highways of the state have been greatly improved under a policy of state appropriation combined with local taxation.

ber operated by owners or managers, 28,701; number operated by tenants, 4008. The detailed figures for 1910 for acreage per farm were:

over 500 acres	607 farms	between 50 and 100 acres	5,910 farms
between 175 and 500 acres	8,516 farms	between 20 and 50 acres	3,481 farms
between 100 and 175 acres	9,492 farms	less than 20 acres	4,578 farms

¹ 16,354. ² 5451. ³ 2516. ⁴ Produced on 71,510 acres, and valued at \$1,169,223.

⁵ Distributed as follows: lumber and timber products, \$8,598,000; paper-making and wood-pulp, centralized around Bellows Falls, \$3,902,000.

⁶ The marble product of the rest of the Union for 1908 was \$3,053,960; of Italy, 18,926,239 lire = \$3,761,248.

The advance of settlement from the coast of New England to the Vermont mountains was so arduous that it took one hundred years, and the country filled slowly, as, until the conquest of Canada laid the fear of French and Indian invasions, only the most hardy would venture into what was the colonies' most exposed frontier. As settlements multiplied, the pioneers were forced to maintain a contest for local independence, first with Massachusetts, then with New Hampshire, and finally with New York. Although capturing Ticonderoga and driving out the English at the beginning of the Revolutionary War, the opposition of New York prevented Vermont from being recognized by the Continental Congress, and from the end of the war until the organization of the present federal government, Vermont acted as an independent republic outside of the jurisdiction of Congress and preparing to resist New York's claims by force. One of the first acts of Washington's administration was to induce New York to relinquish its claims, and as soon as this renunciation was secured, Congress made the first addition to the original thirteen states by admitting Vermont as a member of the Union in 1791.

Vermont troops took part in the military operations upon the Canadian border during the War of 1812, and as large a proportion of the population enlisted in the Civil War as in any northern state. The strength of the state in presidential contests and in Congress, generally on the conservative side in the early elections, was thrown uninterruptedly with the Whigs from 1832 until the disappearance of their party, and since the formation of the Republican party has been continuously upon its side.

The conspicuous feature in the government of Vermont is that the lower house of the legislature is composed of one member from each town and city, of which there are 246, the town of the city of Burlington, with a population of over twenty thousand, having the same representation as the town of Somerset, with twenty-seven. Connecticut is the only other state which approaches this equal territorial representation in the lower house, although New Jersey and Maryland use a similar basis for constituting the senate. The senate, composed of thirty members, is elected by counties in proportion to population, each county, however, being entitled to at least one senator.

The executive authority is vested solely in the governor, who has the power of negative on all legislation, but may be overruled by a two-thirds vote of the members present in each house; he also possesses a limited power of appointment and has exclusive power of pardon. The term of the governorship is two years, and unless a candidate receives a majority of all the votes cast by the people, the election is made by the legislature in joint session. Several other administrative officials are elected in the first instance in joint session.

The judicial authority is vested in a supreme court of five justices, in county courts composed of a presiding judge (a superior judge, of whom there are seven) and two assistant judges, in a court of chancery, and in inferior municipal and justice courts. Justices of the supreme court and the superior judges are elected biennially by the

legislature in joint session. Assistant judges of the county courts and justices of the peace are elected biennially by the freemen of their respective counties. Judges of the municipal courts are appointed by the governor. The superior judges are also chancellors of the court of chancery.

This distribution of the powers of government is made by the constitution of 1793, which has, however, received thirty-three amendments, the first in 1828 and the last in 1913. At the fifth biennial session of the General Assembly following that of 1910, and at the session thereof every tenth year thereafter, the senate may, by a two-thirds vote, make proposals of amendment to the constitution, which proposals, if concurred in by a majority of the members of the House of Representatives, are submitted to the ensuing legislature. If each house again approves, the proposed amendment is submitted to the people, and a majority vote in its favor makes it a part of the constitution.

The unit of local government, as well as of representation in the lower branch of the legislature, is the town.¹ The town is governed by a board of selectmen; the more important administrative officials are a clerk, a treasurer, a board of listers, one or two road commissioners, and a board of school directors. Although villages may become public corporations under the general law, yet more generally it has been by special act of the legislature.² The more important officials of a village are a board of trustees, a clerk, a treasurer, and a collector of taxes.

The county,³ so important in the local administration of states outside of New England, is hardly more than a geographical expression in Vermont except in judicial matters. It merely groups the electorate for senatorial elections and the election of officials concerned with the administration of justice—the sheriff, the prosecuting attorney, and the assistant judges. The assistant judges appoint the county treasurer, and exercise the meagre county jurisdiction that exists.

Vermont has practically no debt except the outstanding bonds representing the \$135,000 received from the federal government in 1862 for the support of an agricultural college and the Huntington (school) Fund of \$211,000. The total expenditure of the treasury of Vermont in the fiscal year 1911–12 was \$2,350,508. The total income was \$2,303,754, the deficit being supplied from the balance in the treasury, which at the beginning of the fiscal year stood at \$566,141.

The salient facts concerning the commonwealth thus briefly brought together show in outline a state with no large cities, whose chief industry is agriculture, with the probability that an increasing development in manufacture may be anticipated. It is a community overwhelmingly Anglo-Saxon in its origin and characteristics, and the problems of education with which it has to deal are those of a large rural agricultural and a small urban population, closely related.

¹ There are also 6 cities, 3 unorganized townships, 4 gores, and 1 grant.

² There are 56 villages.

³ There are 14 counties.

II

THE EXISTING EDUCATIONAL SYSTEM

THIS section considers: (1) the number and nature of the various educational agencies in the state; (2) their general administration and (3) supervision; (4) school privileges and attendance; (5) the teaching staff; and, finally, (6) the finances of the whole. It is based upon whatever statistical information is available in print, corrected and supplemented by the enquiries of the commission and the knowledge of the members of the enquiry staff. Section VII of Part II deals with the characteristics of present reports.

1. THE SCHOOLS

The existing educational system includes tax-supported elementary and secondary schools, approved academies receiving public support as secondary schools, schools for special purposes, schools for special classes, higher and professional institutions, and certain supplementary educational activities.

In 1912 there were about 2400 public elementary schools,¹ of which more than half were one-room, chiefly rural, schools. Only 979, or about two-fifths, of these elementary schools were graded. The superintendent of education reports the existence of fourteen public kindergartens.

As nearly as can be ascertained from the reports of the state superintendent of education, the number of children attending the public elementary schools is about 57,000, divided almost equally between boys and girls.²

Two hundred and fifty schools had, during the last term of school of 1912, less than eight pupils, 522 from eight to fifteen pupils, 743 from sixteen to twenty-five pupils, and 946 more than twenty-five pupils.

There were in the state in 1912, according to the state school census, 46,333 children between eight and fifteen years of age, inclusive, the period of compulsory school attendance; of these, 43,119 children (93 per cent) were reported in attendance upon schools.

¹ The report of the state superintendent of education gives 2461 public schools, which apparently include from 77 to 80 high schools. The word "school" in Vermont does not mean "schoolhouse," but ordinarily means "school-room," Vermont's legal definition of a school being (No. 76, Acts of 1912): "The term 'legal school' shall apply to any public school maintained at least one hundred and fifty days, including holidays and others allowed by law, during any school year, unless it has been impracticable to maintain the same such number of days on account of the closing of said school by the local health officer because of an epidemic, and in which the average attendance during sessions thereof was not less than six, and which was taught by a duly qualified and legally certified teacher, and the register of which was kept and returned according to law.

"The term 'rural school' shall apply, in the distribution of school funds, to any school in a separate building and which furnishes instruction in no less than six of the nine years of the course prescribed for elementary schools, or to any school of a system of not more than three schools which together provide instruction covering the nine years of such prescribed course." In 1912 there were 2397 such legal schools.

² The superintendent reports 64,518 pupils in the public schools, — 32,524 boys and 31,994 girls. This last figure should be 31,994. This total probably includes the pupils in the secondary schools, variously given as 5653 or 5496 in the high schools, and 1421 in the academies. These discrepancies are characteristic of the superintendent's reports; the returns to his office are frequently inaccurate, and his staff is too small to ensure accuracy or to make special enquiries.

In 1912 there were seventy-four approved high schools and eighteen approved academies. While the recorded statistics vary somewhat, it appears that, for the year 1911-12, 5496 pupils were in attendance upon the approved high schools (1942 first year pupils, 1414 second year pupils, 1105 third year pupils, 919 fourth year pupils, and 71 graduate pupils).¹ During 1911-12, 1633 academic pupils attended the approved academies. Of this number 1421 resided in Vermont. The town clerks reported the payment by the towns of 1272 high school and 960 academy tuitions.²

A State School of Agriculture, a school of secondary instruction, is located at Randolph Centre. It was established by the legislature in 1910, taking the place of the Randolph State Normal School, which was discontinued in that year. The school offers a one-year course, a two-year course, a short winter course, and special courses in agriculture. During 1911-12, fifty-six young men were in attendance; during 1912-13, eighty-three.

A second school of this type was authorized by the legislature of 1912 to be located in Addison or Rutland County, as approved by the governor and the educational commission.

Since 1910 classes for the training of elementary school teachers have been conducted in connection with high schools. There were 12 such training-classes in 1911-12 and 14 in 1912-13, the latter enrolling 152 students.

The state maintains two state normal schools, one at Castleton enrolling 87 students in 1911-12, and one at Johnson enrolling 56 students in that year. Previous to 1910 a normal school was maintained at Randolph also.

There are four chartered higher institutions—the University of Vermont and State Agricultural College, located at Burlington, Middlebury College at Middlebury, Norwich University at Northfield, and St. Michael's College at Burlington. Strictly speaking, no one of these institutions belongs to the state public school system, each being under an independent board of trustees. The first three institutions receive annual grants from the state treasury. In these three institutions there were for the year 1912-13, 1013 students.

A State Industrial School, to which delinquent boys and girls are committed, has been maintained at Vergennes since 1865. This school is under the control of the Board of Penal Institutions. On July 1, 1912, the number of pupils in the school was 145 boys and 62 girls. The total number of commitments to the institution since its organization have been 2000 boys and 351 girls, a total of 2351.³

The state has no special institution for the education of defectives. The governor, by virtue of his office, is commissioner of the deaf and dumb, blind, idiotic, feeble-minded, and epileptic children of indigent parents, and as such commissioner is charged

¹ The total 5496 does not correspond with the sum of the pupils by years, 5451; or by courses, 5287.

² The principals reported 1055 and 718, respectively.

³ It is recommended in Section IX that the control of the State Industrial School be transferred from the Board of Penal Institutions to the State Board of Education.

with their instruction. The state appropriates \$30,000 annually for the benefit of these children. They are instructed mostly in institutions in neighboring states. The legislature of 1912 created a state school for feeble-minded children, and appropriated \$25,000 for this purpose. The same legislature appropriated \$25,000 to the Austine Institution, a private corporation for the care and education of defective and unfortunate children, which had received \$50,000 from the state in 1911.

The principal supplementary educational activity is that under the direction of the State Board of Library Commissioners, which serves in an advisory capacity to local libraries, holds schools of instruction for librarians, and has general supervision of the state aid granted to local libraries. This board also has charge of the traveling libraries.

2. GENERAL ADMINISTRATION

There is no central educational administration that touches all of these educational agencies. The tax-supported elementary and secondary schools, while conducted by the towns, receive nevertheless some appropriation from the state, so that the state superintendent of education has a certain power of scrutiny and supervision. The administration of the normal schools and of the higher institutions is practically independent in each case, so that there is nowhere in the state system of education any administrative body or set of officers whose business it is to deal with these institutions as a whole. In the absence of such administrative oversight the studies and the conditions of admission prescribed by the colleges have been the strongest single factor in determining what should be studied not only by those who expect to go to college, but by the great body of students in the elementary and secondary schools.

The governmental unit of Vermont being the town, the chief governmental agencies for the control of public elementary and secondary schools are town officials. Each town constitutes a district for school purposes, and has a board of directors consisting of three citizens of the town, one of whom is elected for a term of three years at each annual meeting of the town. The board elects one of its members as chairman and appoints a clerk. The duties of the board include the general management of the schools,—care of the school property of the town, the determination of the number and the location of the schools, the suitable repair and insurance of the schoolhouses, the employment of teachers and the fixing of their compensation, the examination and allowances of claims arising therefrom, and the drawing of orders on the town treasurer in payment thereof. They also have authority to designate the schools that the various pupils shall attend, and make regulations not inconsistent with the law for carrying into effect the powers granted them. They are required to furnish an estimate to the town meeting of the amount of money required for the use of the schools and to make an annual report to the towns. The compensation of the directors is such sum as the town votes for the time they actually spend in

the performance of their duties. The usual amount is two dollars per day or fraction thereof.

While the town is the typical school administrative unit, one interesting exception should be noticed. The town system became optional in 1870 and mandatory in 1892. In the interval many of the towns changed from the old district system to the town system of control. At first, however, if we may judge from the reports of town superintendents, there was considerable suspicion of the system. This was particularly true of the larger centres of population—places that had developed under the district system comparatively strong graded school systems, and now feared that under the new system they would be taxed for the support of the rest of the schools in the town at the expense of weakening their own schools or of increasing their taxes unduly. They feared also that they might lose direct control of their own school affairs. A protection against these supposed dangers was found in incorporating these centres by special acts of the legislature, as distinct special districts for school purposes. There are at present thirty of these incorporated districts in the state. They have their own boards of directors, support their schools on taxation of the property within their corporate limits, receive a portion of the public money that would otherwise go to the towns in which they are located, and deal with the town in the matter of tuition of advanced pupils, just as one town deals with another. There is nothing to indicate that the fears which led to such separate incorporation were well founded. Almost without exception the incorporated districts would improve their school income and attendance by a recombination with their towns. The towns, on the other hand, would profit by improved school facilities. There is no reason to believe that the towns in which these incorporated districts now exist would be more backward than other towns in interest and pride in an efficient central school.

The local educational officer, the town superintendent of schools, is appointed annually by the board of school directors at a compensation determined by them. In case towns form a union, the local educational officer is the union superintendent, who is elected, and whose salary is fixed, by a committee composed of the school directors of the towns forming the union. The formal duties of the superintendent are to visit the schools of the town at least once each term, and oftener if the board of school directors or the joint committee so orders, to note the method of instruction and government, to inform himself of the progress of pupils, and to give necessary advice to teachers. The superintendent also has power to dismiss incompetent or unfit teachers.

Provision has existed since 1906 for the union of towns for supervision. In such cases of union, the state grants a stipulated portion of the salary paid the superintendents. The qualifications of union superintendents are also defined by law, and their appointment is subject to the approval of the state board of education.

The chief administrative agency for the state school system is the state board of

education, created by the legislature of 1912. This board will hereafter appoint the superintendent of education, who has hitherto been elected by the legislature.

The state board of education, composed of five members appointed by the governor and the senate for a term of six years, is given general powers and duties with regard to the educational system of the state, particularly with regard to normal schools, which are entirely under its charge; to colleges and universities as to expenditures of state appropriations; to high schools as to classification and standard, qualifications of teachers, courses of instruction, and so on. This board also has general control of union superintendents.

The superintendent of education is the executive officer of the board of education, and has supervision over all of the educational work in the state with the special exceptions noted for the board of education. He makes formal reports to the board with recommendations for improving educational conditions, disburses the funds appropriated for summer schools, educational meetings, and agricultural instruction; examines and certifies teachers, etc.

Each of the several special and higher institutions of education has its own board of control. The constitution and powers of these boards are discussed in later sections.

3. SUPERVISION

The superintendent of education is the chief supervisory officer of the educational system; the immediate supervision of local schools is carried on by town and union school superintendents. On August 1, 1912, there were 55 supervisory unions and two special school districts under superintendents (55 men and 2 women). Sixteen of these superintendents assumed their present positions during 1912, four during 1911, nine during 1910, ten during 1909, two during 1908, ten during 1907, and four previous to 1907 (two records missing). Their annual salaries vary from less than \$1250 to more than \$2500; one-third receiving from \$1250 to \$1500 and slightly more than one-third receiving from \$1500 to \$1750.¹

As a group these superintendents are young men and women, 38 out of the 55 being below forty years of age. With half a dozen exceptions, all of the superintendents have had the equivalent of a three or four year high school education; fourteen have had one or two years of normal school training; thirty-six are college graduates, and ten others have had one or two years of college study. Practically all have had a teaching experience of from one to five years in rural schools and a somewhat longer experience in high schools, but practically all of them began their work as superintendents without previous supervisory experience. In the majority of instances they transferred directly from a secondary school position.

¹ Information from commission's enquiry; for details, see Part III.

4. SCHOOL PRIVILEGES AND ATTENDANCE

The public elementary schools of the state have been free since 1867. Since 1894 the state has sought to equalize the privileges of education by providing aid for the transportation and board of pupils.

Each town is legally obliged to maintain a high school or to furnish higher (secondary) instruction for its advanced pupils, by arranging for the instruction of such advanced pupils in the high school of an incorporated district, or an academy within the town, or in the high schools or academies of other towns within or without the state.

Children between the ages of eight and fifteen years, inclusive, are subject to the compulsory attendance law. The annual period of required attendance is one hundred and fifty days, including legal and other holidays. Children under sixteen years of age who have not completed the course of study of nine years prepared for the elementary schools by the superintendent of education may not be employed in any work connected with railroading, mining, manufacturing, or quarrying, or be employed in any hotel or bowling alley or in delivering messages, except during vacations or before and after school hours. No child under fourteen years of age may be employed by any railroad company or in connection with any mill, factory, quarry, or workshop where more than ten persons are employed. No child under the age of twelve is permitted to be employed in or about or in connection with any mill, factory, quarry, workshop, or in delivering messages for any corporation or company, or in any mercantile establishment, store, business office, restaurant, bakery, or hotel.

Pupils in elementary schools are provided, at the expense of the town, with all appliances, supplies, and text-books. Towns may provide free text-books for secondary schools.

5. THE TEACHING STAFF: TRAINING, CERTIFICATION, EXPERIENCE, AND SALARIES¹

The situation for the teaching staff of the public schools of the state is exhibited, as to its larger aspects, by comparative tables in Part III and the following general statistics taken from the report of the superintendent of education for 1912:

*The Number and Training of Elementary and Secondary Teachers
in Vermont Public Schools in 1912*

Number of men teachers	256
Number of women teachers	2,735
Total number of different teachers	2,991
Number of teachers who are graduates of Vermont normal schools	661
Number of teachers not graduated, who have attended state normal schools	164

¹ The principal data contained in this section are based upon the special information furnished by teachers in service, April, 1913, at the request of the educational commission.

Number of teachers who are graduates of normal schools of other states	133
Number of teachers who are graduates of colleges	245
Number of teachers who are graduates of high schools and academics	1,947
Number of teachers not graduates, who have attended college, high schools, or academics	568

Since 1908 the examination and certification of teachers have been under the direct control of the superintendent of education. Under him town and union superintendents conduct teachers' examinations and rate applicants for teachers' certificates. The minimum age for certification is seventeen years.

The existing system provides for several grades of limited certificates.

(a) *First Grade*. Granted for five years, or as long as the holder is employed continuously in the same town, and requiring forty weeks of experience in addition to passing the stated examination. Issued without examination to college graduates and graduates of normal schools in other states.

(b) *Second Grade*. Granted for two years, or as long as the holder is employed continuously in the same town, and requiring twelve weeks of experience in addition to passing the stated examination.

(c) *Third Grade*. Granted for a specified time, not exceeding one year, to those who pass a satisfactory examination. Third grade certificates may not be renewed more than once.

(d) *Special*. Issued by the superintendent of education, without examination, to trained and experienced teachers of such special high school subjects as music, drawing, physical culture, industrial arts and sciences.

(e) *Special Third Grade*. Valid for one year; issued without examination to teachers with fifty weeks of experience, or to teachers with experience (twenty weeks) who have held a second grade certificate or its equivalent.

Graduates of the high school training-classes, if previously holders of diplomas, and of the lower course in the normal schools are given five-year certificates; seniors in training-classes are given four-year certificates; and graduates of the higher course are given certificates for ten years. Each of these is renewable for a like period. Unlimited or life certificates are provided for teachers with specified experience and for experienced graduates of colleges or normal schools; certificates valid for five years are granted to teachers in primary grades and in the kindergarten. These may also be issued by the superintendent of education without examination to teachers with defined training and experience.

The superintendent of education is authorized by law to issue permits to teach in a particular school for a term not exceeding twelve weeks, on the basis of private examinations conducted by town superintendents. A second permit may not be issued to a teacher.

The following table shows the number of the various kinds of certificates held by teachers in the public schools for 1912:

<i>Kind of Certificates</i>	<i>No. of Teachers Holding</i>	<i>Kind of Certificates</i>	<i>No. of Teachers Holding</i>
Permit	45	1st	513
Special	15	2d	953
Life and Normal	210	3d	443

According to information concerning the teaching staff of the Vermont public schools furnished to the educational commission during April, 1913, the teachers vary in age from sixteen to seventy years. Thirty-five are under eighteen and forty-eight over fifty. One-fifth are nineteen or less and about one-fifth thirty-one or more, the remainder, rather more than one-half of the whole number, being from twenty to thirty.¹ The teaching experience of both city and rural teachers varies from one-third of a year to twenty-nine years, but while the majority of the city teachers have had from four to fourteen years, the majority of the rural teachers have had only half as much,—from two to seven years.² About one-fourth of the city teachers receive less than \$400 a year and only about one-fourth receive more than \$500; the majority get between \$400 and \$500. Similarly, the majority of the rural teachers get from \$250 to \$350.

6. FINANCES

The common schools (elementary and secondary) of the state have two principal sources of income: (*a*) local taxation and (*b*) state funds. Local taxes are levied upon the grand list (*i.e.*, one per cent of the assessed valuation of real and personal property, plus the ratable polls). The local tax rate for school purposes, exclusive of the state tax of eight per cent, varied in 1912 from twenty cents on the dollar of the grand list, the minimum permitted by law, to one hundred and twenty-five cents. The average rate for the entire state for that year was sixty-one cents.

The state tax of eight per cent is assessed annually upon the grand list,³ and after receipt at the state treasury was, up to the passage of the School Fund Consolidation Act of 1913, apportioned by the board of education⁴ and paid to the several towns and cities in proportion to the number of legal schools maintained during the preceding school year; \$45,000 being deducted from the total in making the general apportionment and divided among towns raising fifty cents or more on the dollar of the grand list for school purposes. From this and a \$15,000 reserve of the income of the permanent school fund, an amount was paid these towns in 1912 sufficient to provide one-fourth of such excess above fifty cents on the dollar.

A permanent public school fund was constituted in 1906. This fund consists of the sum of \$240,000 returned by the federal government to the state in settlement of Civil War claims, together with the so-called Huntington Fund, the United States

¹ For details, see Part III.

² For details, see Part III.

³ Public Statutes, section 1091.

⁴ In accordance with the provisions of sections 1095 and 1096 of the Public Statutes, as amended by Nos. 34 and 47 of the Acts of 1908.

deposit money, and certain other additions. The governor, lieutenant-governor, state treasurer, and superintendent of education, *ex officio*, and other persons appointed biennially by the governor, constitute the board of trustees of this permanent fund. The income from the permanent school fund, exclusive of the \$15,000 reserve referred to above, was divided among the towns, cities, and unorganized units, according to the number of legal schools maintained during the preceding year.

In addition to the eight per cent tax and the income from the permanent school fund, the state, until the law of 1913, made a number of appropriations in aid of special public school purposes, the more important of which were for the partial payment of the salaries of union superintendents; for teachers' training courses in high schools; for manual training courses in high schools; for transportation and board of pupils; and for advanced (high school) instruction.

By the terms of the School Fund Consolidation Act, approved February 22, 1913, the proceeds of the eight per cent state tax and of the permanent school fund were combined, together with an annual appropriation of \$50,000, to form a fund for apportionment and distribution among the various towns.

Tables showing the receipts and expenditures from 1862 to 1912, inclusive, are given in Part III. The educational interests of the state other than the common schools are maintained by appropriations from the general income of the state.

The following items of state expenditure for educational purposes in 1912 are quoted from the report of the auditor of accounts:

	<i>Administration</i>	
State Board of Education		\$916.64
State Superintendent ¹		7,654.93
Union Superintendents		39,888.20
	<i>Improvement of Teachers</i>	
State Teachers' Association		\$200.00
Summer Schools		900.00
Educational Meetings		819.68
	<i>Common Schools</i>	
State School Tax		\$165,602.16
Permanent School Fund		51,800.75
Transportation		20,000.00
Manual training		750.00

Tuition payments for higher instruction of about \$30,000 were omitted in 1912, but were authorized later.

	<i>Agricultural Education</i>	
State School of Agriculture		\$25,580.54

¹ Including superintendent's salary, \$2000.

Defectives and Delinquents

Austine Institution	\$5,000.00
State Beneficiaries	18,059.76

Training of Teachers

Normal Schools	\$39,888.20
----------------	-------------

Higher and Professional Education

University of Vermont and State Agricultural College ¹	\$76,000.00
Middlebury College	16,000.00
Norwich University	11,000.00

Libraries

State Library	\$8,079.77
State Aid to Libraries	2,809.92
Library Commissioners	2,809.86
Traveling Libraries	1,400.00

The following totals of educational expenditure in the state in 1912 are quoted from the report of the state superintendent :

Superintendents	\$77,005.12	
School directors	11,046.59	
Truant officers	3,511.14	
Medical inspectors	326.23	
Teachers	968,382.35	
Transportation and board of pupils	101,167.23	
Advanced tuitions	54,136.18	
Elementary tuitions	11,241.17	
Text-books	41,020.50	
Supplies and appliances	46,419.30	
Furniture	13,116.69	
Repairs	66,452.97	
Water, fuel, and light	85,997.68	
Janitors and laborers	67,394.30	
Insurance and rent	15,990.01	
Indebtedness on current expenses of previous year	61,632.74	
Miscellaneous	47,869.15	
Aggregate of current expenses		\$1,672,709.35
New buildings	\$204,191.40	
Notes and bonds for new buildings	38,443.52	242,634.92
Aggregate school expenditures		\$1,915,344.27
Percentage of valuation required for schools		.59
Average (current) cost per pupil (enrolled)		\$25.94
(For secondary pupil, \$42.21; for elementary pupils, \$24.85.)		

¹ Including \$50,000 from the federal government.

In a recent comparative study of the public school systems of all of the states of the Union¹ Vermont occupied the first place among the states in the proportion of children enrolled in school, fifth place in average attendance per child, ninth in the percentage of the public wealth expended for schools, fourteenth in the average expenditure per child, fifteenth in the average value per child of public school property, twenty-second in the number of days the schools were open during the year, twenty-fourth in the cost of a day's schooling for a child, and forty-third in the average annual salary of public school teachers.

Because of the variable and incomplete character of the statistics that go to make up such comparisons, their results are merely suggestive. The attitude of Vermont in inaugurating and coöperating with this enquiry indicates that the state desires the best results that are possible, irrespective of comparisons with other states.

¹ Russell Sage Foundation, Division of Education, Bulletin No. 124, New York, December, 1912.

III

THE ELEMENTARY SCHOOLS

THIS section discusses the following topics: 1. The Sources of Information; 2. Standards of Judgment; and 3. The Scope and Character of Elementary Education in Vermont, including (*a*) the administration of school affairs, (*b*) the ages and attendance of pupils, (*c*) the teachers, (*d*) the state course of study, (*e*) the character of the instruction, (*f*) the extent and character of the supervision, (*g*) the conditions of school grounds, buildings, and equipment, in both (1) rural and (2) graded schools, (*h*) supplies, and (*i*) the consolidation of rural schools; and, finally, 4. Recommendations.

1. SOURCES OF INFORMATION

The conclusions to be found in this section are based almost entirely on impressions gained in visiting two hundred Vermont schools and observing the work of two hundred and twenty teachers, from a study of the registers of all of the schools in two hundred and two towns, from the printed reports of the state and towns, and from many interviews. A form calling for certain information regarding their training, salary, and experience was sent to each elementary school teacher in the state, and twenty-two hundred replies were received and studied. Finally, there were the suggestions of nearly one thousand representative citizens sent in response to enquiries from the commission. The week following March 21 was devoted to an examination of the records to be found in the state superintendent's office, and to visiting six of the union superintendents, in order to gain a conception of the spirit of the school system and to learn what facts were readily available.

It happened that the schools had vacation during the next two weeks, so that this time, April 1 to 15, was devoted to a study of "The Teacher's Manual for Use in the Elementary Schools" and the different courses of study that had been obtained. When the schools were again in session a supervisory union or district was selected and three days were devoted to an intensive examination of the attendance of pupils, the courses of study, the quality of instruction, the extent and character of supervision, and the general condition of the school buildings and equipment. Especial attention was given to the rural schools. Of the twenty-three teachers visited during these days, thirteen were in one-room schools. From this time until the schools closed in the early part of June, visits were so planned that all parts of the state were seen and every type of school and community was observed. In all, forty-five days were spent in visiting schools. The difficulty of travel made brief visits necessary in some schools, but many recitations in each subject were observed. It may reasonably be assumed that neither the very best nor the very poorest schools were seen. A sufficient proportion, however, of all the schools and teachers were visited to give an adequate general conception of the actual condition and operation of the schools. The conclusions reached in this way have been

verified in every possible manner. Not only were teachers, superintendents, and other school officers freely consulted, but also merchants, doctors, and others whose relation to their communities gave them opportunity to know and to judge the schools wisely.

During the last weeks of March the town clerks were asked to send the registers of the school year 1911-12 to the secretary of the commission. The registers from two hundred and two of the two hundred and forty-six towns and cities in the state were so forwarded. From these registers it was possible to determine the regularity of the pupils' attendance, the ages of pupils, the number of inexperienced teachers, the number of teachers who are new to their schools, the certificates of the teachers, and the number of visits made by the superintendent.

2. STANDARDS OF JUDGMENT

At the very beginning of such an enquiry it is necessary to decide upon at least some of the standards that shall be employed in judging the schools, as these standards determine the initial selection of facts for study and the approach to them.

One standard that is often used is based upon customary or general practice. Thus, if the various states are arranged in the order of their per capita expense for education, a glance will show the relative position of any state in this particular. Among the topics that are judged by this comparative standard are the attendance of pupils, the emphasis put upon various subjects as shown by time allotments, and the topics treated in the course of study; the efficiency of the teaching force as shown by the training, experience, and salaries of teachers, and the general efficiency of the schools as shown by the percentages of those who remain in school and of those who pass regularly from grade to grade. The quality of instruction is sometimes judged on the basis of examination marks obtained by pupils in one school as compared with those secured by pupils who take the same examinations in other schools.

This comparative standard has the merit of definiteness. It also keeps attention focused upon actual practice, and may thus avoid the influence of opinion and theory. When applied to any particular school or system of schools, however, this standard has certain decided defects. As it is in part derived from the very facts that it is intended to measure, the helpfulness of judgments reached in this way must depend upon the extent to which the systems that are compared embody proper principles. Such a standard, further, assists in presenting facts, but it does not interpret them, so that the defects discovered in this way are too often merely effects rather than the causes. Moreover, it emphasizes uniformity without due consideration of the conditions that should legitimately produce variation. It is likely to test pupils for their knowledge of school subjects rather than for their ability to deal with facts. Finally, the conclusions reached by the use of this standard are likely to cause undue self-satisfaction among the systems that rank high in any particulars, although they may yet be in very great need of improvement.

Occasionally those who have had large experience either in conducting schools or in observing and studying educational conditions have been asked to state their opinion regarding the efficiency of a given school or system of schools. Their conclusions are valid only to the extent to which they are able to gain knowledge of all of the conditions which affect the schools in question. Neither measurement nor judgment is independent of the other, and both are dependent upon fundamental principles.

In judging the efficiency of elementary education in Vermont, therefore, no single method has been used exclusively. Some features of the system have been compared with similar features in other states. Sometimes opinions based upon experience with school conditions have been given. Mainly, however, reliance has been placed upon the application of standards that grow out of the essential purpose of the school. This method has the advantage of applying the same kind of standard that the public uses when it judges the efficiency of the schools. Its conclusions point the way to improvement.

The purpose of the public elementary school cannot be other than assistance in developing character and making good citizens. On this ground alone can the expenditure of public money for schools be justified. The standards that are largely used in this part of the report grow out of this conception of the purpose of the elementary school. They are briefly stated here; their application will be found in the section dealing with the criticism of elementary education:

1. Schools should recognize the varying abilities, experiences, and environment of the children.
2. Schools should recognize both the present and the future needs of the children.
3. The knowledge gained in school should be so organized that the children can use it.
4. In so far as the state assumes the responsibility for elementary education, the educational opportunities should be as nearly uniform throughout the state as conditions will permit.

3. THE SCOPE AND CHARACTER OF ELEMENTARY EDUCATION IN VERMONT

(a) *The Administration of School Affairs*

Since 1892 the administrative unit for school affairs in Vermont has been the town, a territory in general about six miles square, which corresponds to the township in other New England states. Prior to 1870 control rested with the districts; the legislature of that year enacted laws allowing the present town system, but it was not compulsory until 1892. The school affairs of the town are administered by a board of school directors of three members, whose election, organization, duties, and compensation are described on page 27. Very few directors concern themselves with the internal affairs of the schools, except to encourage and assist the teachers and superin-

tendents. Occasionally, however, a director undertakes to control the discipline of the school, to dictate the methods that shall be employed by the teachers, and to purchase on his own responsibility books, equipment, and supplies that are useless in the school-room. Fortunately, such occurrences are so rare and stand in such bold contrast to the general course pursued as to be almost negligible. In practice the boards seldom have regular meetings. Where the directors are in different parts of the town, each is likely to look after the repairs and concerns of the school or schools near him. There are some towns in which no minutes are kept of the meetings that are held.

Two features of elementary school administration deserve especial attention. The boards rarely have written contracts with those whom they employ. This makes it possible to manipulate accounts so that the people of the town may be in ignorance of true conditions. In one town it was asserted that a teacher was paid ten dollars a week, but the accounts were so transferred that she was reported to the town as receiving only eight dollars.

Teachers and those who transport children should have written contracts in duplicate. In the case of teachers such contracts should, whenever possible, be for the year rather than for the single term of ten or twelve weeks. This would tend to decrease the number of changes of teachers in the rural schools. These contracts should state the times at which the payments of salary are to be made. School directors are particularly concerned in this matter. The absence of written contracts and often the lack of minutes of board meetings make it possible for any one so inclined to cast doubts upon the integrity of the director. In one town a teacher said: "I am getting nine dollars a week, but I don't know what I am supposed to be receiving. When I was employed, the director stipulated that I was to board with him, and he has my wages paid in two checks, one to himself for my board, and the balance to me. I have never seen his check." An examination of the books of the clerk was made, but as there were no written contracts and the teacher had been paid at irregular intervals, there was no way of determining the period for which payment had been made. In two of the towns visited there had been no agreement as to how much the town was to pay for conveying pupils. The school officer told what he thought he would pay, but a talk with those conveying the children revealed the fact that they were expecting very different amounts—in one case, thirty per cent less. To assist the school officers, the school registers should each contain at least three teachers' contracts in duplicate and a form of transportation contract.

One reason for having school affairs controlled by a board of citizens, rather than by those engaged in the profession of education, is to make it easy for any person who feels himself aggrieved to be heard by those who presumably will be in sympathy with his point of view. In actual practice it often happens that it is wiser for parents to submit to what they consider grave injustice rather than to attempt to have conditions changed. If they go to the teacher, they may gain nothing but to incur her ill-will toward their child. The superintendent often feels that he must sustain the

teacher, and the board the superintendent. There is the possibility of an appeal to the courts, but this is slow and expensive. There should always be an easy and inexpensive method of appeal to an authority that can act quickly and impartially and whose verdict will be final. Such authority should rest with the state board of education. Some cases may now be appealed to this board, but in matters connected with the conveyance of pupils, the designation of a particular school for pupils to attend, insufficient school accommodations, or cases of attendance upon a school in another town, and the number of weeks of school attendance, appeal from the decision of the town board is to the town or union superintendent, by a petition signed by five taxpayers of the town. Two persons, one chosen by either party, act with the superintendent, and their decision rendered in writing is binding on the board. The superintendent who thus exercises judicial powers must also, as the agent of the board, exercise executive authority over patrons upon whose goodwill much of his success depends.

(b) *The Ages and Attendance of Pupils*

The school age in Vermont is from five to seventeen inclusive; the compulsory ages are from eight to fifteen inclusive, unless the child is physically incapable of attending school, or has already acquired the branches taught in the elementary school as prescribed by the superintendent of education. A judgment based upon the federal census of 1910 would place the number of children of five to seventeen years of age in the state at about 83,000. Of this number approximately 57,000 are attending the elementary schools. Fifty-four per cent of the children live in the country, and nearly ninety-five per cent of them are native born. Comparatively few children enter school before six and almost none remain after sixteen years of age. An examination of the registers of 608 schools in 69 towns and incorporated districts chosen at random showed that the ages of the 13,136 children attending these elementary schools (June 30, 1912) were as follows:

<i>Ages</i>	<i>No. of Pupils</i>	<i>Per Cent of the Total</i>	<i>Ages</i>	<i>No. of Pupils</i>	<i>Per Cent of the Total</i>
4	21	.2	13	1,248	9.6
5	213	1.6	14	1,207	9.2
6	815	6.2	15	996	7.6
7	1,343	10.2	16	339	2.6
8	1,358	10.3	17	121	.9
9	1,470	11.2	18	27	.2
10	1,389	10.6	19	4	
11	1,274	9.1	20	2	
12	1,308	10.0	21	1	
			<i>Total</i>	13,136	

Each year, between the 20th and 30th of June, the clerk of the board of school directors of each town is required to prepare an accurate list of the children of

school age and the names of the parents or other persons responsible for each child; the clerk receiving a compensation of five cents for the name of each child. In many towns so little attention is paid to this school census that the federal census for 1910 showed several thousand more children than were reported by the school clerks. A not uncommon way of making the census list is for the clerk to take the registers of the previous year, add one year to the ages of the children, dropping any that he knows to have moved away, and adding any that he may recall as having moved into the district. This list is to be kept on file, and from it the clerk is required to insert in the register of each school the names of the children who should attend that school. This provision, however, is very generally disobeyed. An examination of practically all the school registers for 1912 shows that less than one-half had the names so inserted, and in many of these cases the teacher herself had supplied them. The children that are omitted by such procedure are precisely those that are in the greatest need of schooling.

In many towns the school census is fairly correct; in others there is little claim to accuracy. If this condition persists, a remedy may be found in some regulation that shall cause part of the state aid to be based on the number of children of school age. In this event the state board should require an affidavit of the correctness of the report from school officers.

There is no trustworthy information regarding the number or location of school children who are so deaf or who have such poor sight as to be unfit for the public schools. These data should appear in the census in order that such unfortunates may receive the care to which they are entitled. When adequate tests have been developed for the detection of the feeble-minded, these children also should be especially enumerated.

Except for a relatively small number of towns, the proportion of children of school age enrolled and the attendance of those so enrolled is remarkably good. The federal census of 1910 shows that Vermont is tied with Kansas for first place in the proportion of children of school age who were enrolled in school for some portion of the school year. When compared with other states, the attendance of pupils in Vermont schools also is excellent, but no state can afford to relax its efforts until every child who should be in school is in attendance every day that the schools are in session, unless he is prevented by sickness or some pressing need in the home.

Some states require that teachers report each absence of a pupil who should be in attendance. Others permit teachers to cease to consider pupils as members of the school after a certain number of consecutive days of absence. This number in some states is three, in others five, and in still others ten days. In Vermont ten consecutive days' absence is supposed to sever the pupil's membership. Thus a child who was absent ten or more consecutive days would not be counted absent in the report rendered to the state superintendent, but one who had been absent nine consecutive days, or any number of days at intervals, would be reported for all absences. This varied practice

makes any comparison of the regularity of attendance that is based upon state reports very unreliable. In about half of the registers for 1911-12 the teachers had failed to understand the rule regarding membership and had reported all absences. This difference in the method of recording absences makes it unsafe to compare the attendance of even two schools in the same town. The cause of absence is not indicated in the register, consequently there is no way of determining the exact amount of unlawful absence. Each absence should be recorded, and a system of symbols for indicating the cause of absence should be devised by the state superintendent. This would make it possible to report the number of absences due to sickness, as well as those that are unlawful.

The state has a stringent compulsory education law. Its provisions are clear, and the duties of teachers and truant officers are explicit. In some towns, however, the law is not obeyed. A few places were found where teachers had repeatedly sent notices of truancy to the truant officers, but these officers had not even enquired the cause of absence. The consequence is that in a few schools at least one fourth of the pupils are habitual truants or are unlawfully kept at home by parents. If the attendance laws, when properly enforced, fail to correct such abuses as now exist in these places, a legal provision, making it possible for the state board to withhold state funds from such towns, would be entirely effective.

(c) *The Teachers*

About twenty-four hundred teachers are required for the elementary schools of the state, but owing to resignations, more than twenty-seven hundred different teachers were employed during 1911-12. About two hundred of this number were men. The lack in large sections of Vermont of occupations for women other than teaching has had a tendency to keep the teacher's salary very low, and this in turn has prevented the rural schools in particular from obtaining teachers who have any considerable amount of professional training. The typical rural school teacher is therefore a young woman of about twenty-three, who has been teaching about four years for \$8.50 a week or \$275 a school year. In many cases she teaches in her home town and either walks or drives from one to five miles to get to her school. She is a graduate of a four-year high school, but has had no professional training. Never having been taught the methods and devices that might enable her to meet the situations of the class-room, she either succeeds or fails in accordance with her native ability, and this fortunately is large. As might be expected, the better trained teachers are found in the graded schools, where the salaries are much better and the tenure of office is more secure. More than two-thirds of the graded school teachers began teaching in ungraded schools. Detailed information concerning the salaries, academic and professional training, and teaching experience of more than twenty-two hundred of the elementary teachers is presented in Part III.

An examination of the school registers for 1911-12 showed that while only twelve per cent of the teachers each term were inexperienced, more than one-half of the teachers of the rural schools were new to the schools in which they taught. A conservative estimate, therefore, of the number of different teachers a child would have in passing through the rural elementary schools would be fifteen. In the graded schools this number would be less. Teachers are not required to sign contracts, and in many towns they are engaged merely for the term of ten weeks. In some places it is impossible for the teachers to obtain suitable boarding-houses in the vicinity of their schools, and the town has to transport them to and from the school.

The relations that prevail between the teachers and the pupils in the two hundred elementary schools visited deserve special commendation. The old-time severity has given way to a helpful attitude of mutual respect and coöperation. In the recitation the teachers manifested a patience and a sympathy that placed the child at ease and called forth his best efforts. In no case was sarcasm employed, and in only one instance, and that in a graded school, was a teacher heard to speak in a way that humiliated a pupil.

It must not be assumed that teachers and superintendents do not have to exercise discipline and even to employ severe measures. In several of the schools that were visited teachers had failed so completely earlier in the year that they had been removed. Generally, however, those in charge of the schools are meeting such critical situations in a manner that aids the development of character.

The fact that many teachers do not board in the communities where they teach limits their usefulness to the community. Here and there, however, over the entire state young women scarcely out of their teens are wielding remarkable influence. In some cases the towns have spontaneously raised their salaries beyond what they have paid before, and adjacent schools, so far from opposing consolidation, have been anxious to have their children transported to the schools presided over by such teachers.

The statutes provide that teachers may receive their salaries monthly if they so demand. Practice in this matter varies throughout the state. In some towns and in most if not all of the cities the teachers are paid monthly. In other towns the director stipulates at the time he employs the teacher that she is to be paid at the end of the term. In still other towns teachers write or telephone to the chairman of the directors that they want money. He fills out an order, waits until he can conveniently see the other directors whose signatures are required, gives the signed order to the town treasurer, and in time the teacher receives her money. In places where teachers cannot shop there may be little demand for ready money, but the fact remains that for many reasons the most satisfactory method of payment is monthly. In some towns teachers have complained bitterly of the present method. As is shown in the report on finances, Section VII, it is often an advantage to the town to postpone the payment of teachers as long as possible, especially when the selectmen have to borrow the money.

(d) The State Course of Study

The present "Teacher's Manual for Use in the Elementary Schools" was issued by the department of education in 1907. The introduction states that it was prepared for the ungraded rural schools rather than for the graded schools in cities and villages. No less than twenty different people contributed to the making of this course of study, and since no definite principles are given as having governed these individuals in the making of a course, there is a lack of unity in the points of view. Some of the subjects are fully outlined with a clear statement of the ends to be attained. For other subjects there is a mere catalogue of the things to be done, with little or no indication of the aim or purpose of the work. In actual practice this course of study is not used in many schools. Several of the cities and larger villages have more or less detailed courses of study, and many of the union superintendents have been diligent in trying to prepare courses suitable for their own schools. The following summary indicates the order in which a child, entering the school at the customary age of six, will take up the various subjects.

The child's principal task during the first school year is to learn to read primers and first readers. Incidentally, he is taught to spell many of the words that he reads, to count to ten, to add and subtract within the limit of his ability, and in writing to form the letters and easy words. Many fairy and hero stories are read to him, and he is encouraged to reproduce them orally in order that his power of expression may be improved. Some attention is given to the fundamental principles of hygiene, nature study, and the simplest social relationships. In some schools rote singing and drawing are also begun. Although the emphasis is upon reading, all the subjects that are taught in the elementary school are introduced in very elementary form in the first school year.

During the second year reading is still emphasized, but the other subjects are given more systematic attention. Through constant drill the child gains enough facility in writing and spelling to write simple compositions. He learns the tables of several of the more commonly used measures which the teacher employs in formulating simple problems involving counting, adding, and subtracting. Rote singing, drawing, and the observation of the common birds, animals, and plants is continued.

In the third year the emphasis is changed from reading to arithmetic. The child learns the multiplication tables and continues to drill upon addition, subtraction, and the simpler forms of fractions. Although oral expression is still encouraged, written composition, particularly letter-writing, and simple grammatical distinctions form a considerable part of the English work in this grade. The child is made familiar with the common geographical concepts and terms through the study of a text that deals with the general features of geography that can be illustrated in his own locality. In some schools note singing is begun, and most schools give nature study and drawing some attention.

In the fourth year the mastery of the four fundamental operations in arithmetic is completed, and more definite work with fractions begun. Drill is accomplished by numerous examples found in the text-book. Since the child is supposed to be able to read anything within his comprehension, less attention is given to reading as a separate subject. Geography in this grade is concerned with the earth as a whole. Hero stories are used for the direct purpose of teaching some of the important events in history. Letter-writing, oral and written composition, and the grammatical analysis of simple sentences constitute the work in English. The other subjects are continued as in the preceding grades.

During the fifth year the work in arithmetic is concerned with the application of numbers that involve decimals and percentage. There is reading for appreciation and acquaintanceship with good literature. The English is continued as in the preceding grades with the exception of an increased emphasis upon formal grammar. In geography attention is given to the study of the principal features of selected continents. Some of the important events of history are taught by means of stories. The remaining subjects are taught as in the fourth grade.

In the sixth year the chief new topic in arithmetic is simple interest. There is a thorough drill in all that has previously been taught. Formal grammar is more emphasized in the English work for this year, and many compositions based upon school and home experiences are required. The study of the continents continues in geography, and there is an intensive study of the state of Vermont. The reading of brief historical studies is continued, and an attempt is made to correlate history with geography and language work. Some attention is given civic relationships.

Prior to the seventh school year all of the fundamental processes in arithmetic have been taught. During this year drill and reviews, with some of the applications of number to business operations, are given. In history the children begin a systematic study of English and early American history from text-books. There is little change in the character of the work required in the other school subjects.

During the eighth year and in those schools that have a ninth year the children complete and review the whole subject of arithmetic. In some schools elementary algebra and geometry are begun. In English attention is directed to a somewhat critical study of literary selections, and to a thorough review of all the work of the course. In geography as in arithmetic the child completes and reviews the subject. In history an elementary text-book of American history is completed and the history of Vermont is considered. In general this year is devoted to a review and rounding up of the elementary school subjects and to further preparation in such studies as are continued in the high school. The statutes require that good manners be taught in every school. This is sometimes done by having the pupils determine what they would do in hypothetical situations. More often, however, teachers take the opportunities that present themselves in the school-room for teaching this subject.

Generally these local courses of study have been mimeographed, and their proper

use has been made the subject of discussion for teachers meetings. The importance of such work cannot be overstated. Superintendents who have undertaken it often express their dissatisfaction with the results, but it has brought them face to face with the real problems of instruction. For several years prior to 1913 committees of the union superintendents were charged with the duty of formulating a new state course of study, but these committees seem to have accomplished little, and at their meeting in June, 1912, they decided that the work could best be done by a smaller group, who should be paid by the state for their services and expenses. Since that time, however, there has been no further united effort in this direction.

It is not uncommon to find teachers working without any directions whatever. In some cases girls who were graduated from the high school in June begin to teach in the autumn with their entire directions for a year's work with seven or more grades written in lead pencil on a single sheet of paper. Such teachers can do little else than work through certain pages of the books that are assigned. With their lack of experience they are unable even to select the valuable parts of the texts, and so they teach all without discrimination. In all of the schools observed there was a marked tendency to have the rural school children do the same work as was done by the children in the graded schools of the nearby villages. In a few rural schools the teachers were attempting to teach elementary agriculture, but in general the farmers have not been enthusiastic over such attempts, probably because the teacher is in most cases the daughter of a neighbor whose farm is in no way out of the ordinary. Music and drawing are taught in most of the schools, and some of the teachers who have special aptitude for hand work are accomplishing a great deal in this subject.

The course of study contained in "The Teacher's Manual" does not differ essentially from most other state courses. The fact that it was not followed to any considerable extent in any of the schools that were visited would seem to indicate that it is not adapted to their needs. This in fact was a very common complaint among the teachers. The primary purpose of a course of study, like good teaching methods, is to secure efficient instruction. Incidentally it serves in determining the grades to which pupils belong and assists the administrator in other ways. The course of study is therefore subject to the same principles that govern good teaching.

The school is one of a large number of institutions that contribute to the education of children. The home, the farm, the factory, and the various civic, social, and religious organizations each has an influence. The school is not intended to take over that which will be well and economically done elsewhere. It is essential that the school recognize the varying abilities, environment, and experiences of the pupils, and the course of study should as far as possible provide for such conditions.

The Vermont course of study recognizes the varying abilities of children to only a small extent. Examples are to be found in the course for reading, where a long list of books from which the teachers may select is given. The course in arithmetic for the eighth and ninth grades states concerning certain subjects that "they may be

regarded as optional." In general, however, no provision is made for the varying abilities of children.

Children who live on farms generally participate in the activities of the home, often having chores to do. It is certain that much of their experience differs greatly from that of city children who live in homes that do not furnish such opportunities. There is a statement in the introduction to the manual to the effect that the curriculum is intended for the rural schools, and a suggestion that the work and the methods of the graded schools differ somewhat from those of the rural schools because the former have more time for recitation and more pupils per class. But this is the only reference to any difference in environment or experiences.

The introduction to the manual states also that the course is suggestive rather than prescribed. This would lead one to expect that the teacher could easily select the subject-matter most needed by her pupils. Such, however, is not the case. In only one subject is there any indication of what are the more important parts, and but few guiding principles are stated.

The course aims to prepare for the high school. In a few particulars only does it attempt to meet the child's present needs. The arithmetic for the first year introduced only those combinations that the child will be likely to need, but this is in marked contrast to the teaching of elementary algebra in the seventh year.

In Vermont as elsewhere there are many complaints that pupils who have completed the school course are unable to do satisfactory work in positions requiring the use of arithmetic and English. This criticism is often turned against those who were most satisfactory as pupils. The difficulty is not that these subjects did not receive enough time in school, but rather that the processes were merely memorized and the memory kept alive by frequent drills. The children never saw that these processes had any practical application, consequently the knowledge was not so organized that it became a part of the child's experience. The remedy is to be found in such an organization of the subject-matter that children can use it. In this respect Vermont courses often fail. The course in agriculture, for example, outlines ten experiments for the testing of soils, but there is no suggestion of any use that may be made of this knowledge. Most adults have little need for the use of square root or algebra, yet these subjects are taught in the eighth and ninth years. There are frequent directions to the teacher to correlate the work of one subject with some other, but the course makes no attempt to do this except between English and drawing. The country child has the same right as the city child to have the work adapted to his experiences and needs. This is not for the purpose of making a farmer of him, but so as to furnish a foundation upon which he can organize his knowledge. Except for a few topics, such as problems concerning fences in arithmetic, and the raising of vegetables as subjects for compositions, there are no indications that the course is intended for rural schools.

Some years ago the elementary school course was lengthened from eight to nine years. This was done because the school year in the rural and many village schools

was so short that the customary elementary school course could not well be covered in eight years. Now that this special cause for the longer course is gradually disappearing, it would be in keeping with the practice of most other states to return to an eight-year course. In fact, it would be advisable in many sections where conditions permit of conveying pupils to end the elementary course with the sixth year, and to do much of what is now done in the seventh, eighth, and ninth years in junior high schools. This subject is treated in detail in Section IV.

(c) *The Character of the Instruction*

It is unsafe to generalize concerning the quality of instruction from observations made in only about ten per cent of the schools. Because, however, of the conditions that were discussed in connection with the course of study, and the influence of the free tuition examinations, the features of instruction presented here are probably typical of those throughout the state, except in certain of the larger cities.

Much stress is laid upon certain formal branches. Handwriting is probably the most emphasized subject in the schools. In one city the teachers were notified that they would not be given contracts for the next year unless they presented certificates of proficiency in the method of handwriting employed in that school system. In another city the teachers were given one year in which to qualify in a similar way. Formal grammar is a close second to handwriting. In many of the schools this subject is begun in the fourth grade, and is continued by parsing, analyzing, and diagraming, through the remaining five years. It is made paramount in the ninth grade. Arithmetic also receives disproportionate emphasis. Such subjects as history, geography, physiology and hygiene, literature, art, and music are not ignored, but aside from some exceptional schools, these subjects do not receive an appropriate amount of attention.

This general emphasis on formal branches results in making drill the predominant method of instruction. This drill too often has but little thought behind it, and as a consequence the subjects in connection with which it is used are those in which the pupils receive the poorest standings in the free tuition examinations, which are discussed later. In beginning reading teachers and superintendents have very generally discarded the earlier drill methods and now approach the subject from the side of its content or thought, with the result that mastery of form comes about incidentally, and as a necessary consequence of a child's desire to understand the thought. In one school the English work of all grades, from the third to the ninth inclusive, was observed. The third grade pupils were asked to tell the story illustrated by two pictures in the text. One child did this in remarkably good form. Of the seven classes observed, however, this was the only one in which the children did or said anything that was their own. The work of the others was confined to technical analysis of sentences, the diagraming of these, and the parsing of the words. While this is the most general characteristic of the work in English, there are teachers who rise above it and

put into their English work an element of practical reality that brings excellent results. In one school of this sort the teacher set a boy the task of ordering a list of supplies that she needed. The interest and appreciation of children who are treated in this practical way are very great. In the matter of literature the schools in general are teaching little else than the so-called classics. It is not uncommon to find that children who have completed the elementary school course have not read in school anything that was written within the last century, except such brief extracts as may occur in the reading-books. Progressive high school teachers report that when the pupils come to them they cannot read books of any considerable length, and find it extremely difficult to study either literature or composition. So far as English is concerned, little attention is given to adapting the subject to the child's needs or interests. The course is based on a supposition that the child will enter the high school, and that the work given is that which is best calculated to prepare for that end. The fact that only a few of these boys and girls will ever enter high school is constantly ignored.

In arithmetic the situation is but little better. A large part of the work in this subject is so far removed from the experiences of the child and from his immediate or even remote needs that he memorizes a mass of forms, which mean nothing to him and can never be applied by him. In one school an eighth grade was assigned ten problems in compound fractions. When the children had solved all the problems the teacher read the answers from his book, but accidentally read the wrong page of answers. The pupils crossed out one after another of their own answers with no display of either surprise or disappointment. Evidently the whole procedure was so unreal to them that they were prepared to accept any result. In another graded school a class was trying, with little success, to determine how much it would cost to line the inside of a cylindrical water tank with lead half an inch thick at a given cost per pound.

History and geography are not made to appeal to the children by connecting these subjects with their experiences. The lessons that were observed in these subjects were confined largely to a repetition of the contents of some text-book, and there was seldom any effort to relate the statements of the book with what the child might be expected to know about his own environment.

Experience has done a great deal toward making some very efficient teachers in Vermont. The fact, however, that a large majority of the elementary school teachers have had no professional training, together with the absence of adequate courses of study, makes the hearing of lessons from books the predominant method of teaching; and since the books do not recognize the varying abilities or experiences of children, the teaching does not. The reason usually given for teaching parsing, analyzing, and diagraming is that they help children to use language correctly. If doubt is cast on the efficacy of this method for accomplishing that result, it is said that these subjects are required for entrance to high school,—hence they are required of children who will never enter high school. Little attention is given to the selection of subject-matter that will serve the present needs of the children, and this tends to make much of

the work mere memorizing, and an attempt to fix unrelated facts in the memory by means of drill.

Much of that which is taught is not organized about the child's experiences. In the midst of Vermont's famous mountains, he studies mountains in geography, but he often sees no connection between the two. No child in a class that was studying the bones of the arm and shoulder by means of a book on physiology was able to locate these bones in the body. In many upper grades children who were able to solve abstract problems of area easily were unable to compute the area of their school-room.

Some good teaching was observed in the rural schools, but in general it was better in the villages and in cities. Teachers in graded schools have fewer grades in their classes and are free from the care of the school building. The trained teachers naturally seek the graded schools, and have usually better pay and a longer school year.

In general the character of the instruction that was found in the Vermont elementary schools was determined largely by two factors. The first is the indefiniteness of the course of study, which has been discussed. The second is the free tuition examinations. In 1906 the legislature enacted laws which were designed to place the advantages of high school education within the reach of all of the boys and girls of the state. Towns are obliged to maintain a high school, or to pay the tuition of properly prepared pupils in the high schools of other towns or states. There was a suspicion that if left to themselves the weaker high schools, in order to secure more money, would receive pupils who were not qualified to do the work. To prevent such a condition, the law provided that the qualifications of the pupils should be determined by means of an examination, conducted by the union or town superintendent. The town is not responsible for the tuition of any high school pupil who does not pass this examination.

The examinations are prepared by a committee of the union superintendents, printed by the state, and furnished to each superintendent who requires them; they are set on given days for the pupils throughout the state. The answers are returned to the state superintendent, who employs readers to mark them, one person reading all of the papers on the same subject. The state superintendent reports the ratings to the town or union superintendents. They determine the eligibility of the pupils for free tuition, and report their decisions to the state superintendent as warrant for its payment.

On its face this seems to be a perfectly logical method. In actual practice these free tuition examinations have had an undue influence upon both the subject-matter and the methods of instruction. The teachers, believing that they are to be judged by the success or failure of their pupils in these examinations, set about to prepare for them. In some of the schools the ninth year is devoted almost exclusively to such reviews and drills as the experience of the teacher leads her to believe will best give this preparation. At one of the most critical periods of the child's life, therefore, he is deprived of new subjects of interest, and is bound to dwell again upon that which he

has gone over and over. The effects of these examinations are manifest not only in the ninth grade, but throughout all of the upper grades. If a teacher is asked why she spends so much time on formal grammar, she almost invariably replies that the examinations demand it. In this she is correct: until the most recent examinations, no less than ninety per cent of the questions in English pertained to formal grammar. Although it is a source of no small amount of pride among the schoolmen of Vermont that their high schools have certificate privileges with the New England colleges, yet a child cannot pass from one division of their own school system to another without an examination.

These free tuition examinations should be abolished. With the increase in the number of competent superintendents it should no longer be necessary to employ this means in order to secure either proper work in the elementary school or adherence to standards by the high school. The abolition of these examinations would cause a great change in the school work of the upper elementary years. It would prevent much of the drilling on subject-matter which now seems of use only for entering the high school. It would remove a large part of what is now done in the ninth grade, and give teachers and superintendents the initiative in determining what is most essential for the pupil's needs.

(f) *The Extent and Character of Supervision*

Prior to 1906 the supervision of all of the public schools was in the hands of town superintendents, who were appointed by the board of school directors for each town. At present about sixty towns that have not joined supervisory unions still have town superintendents. No educational or professional qualifications are required of these officers. They are to observe the condition of the schoolhouses, outbuildings, and grounds; to ascertain whether schools are properly supplied with maps, reference-books, and apparatus, and the pupils with necessary text-books. They make recommendations to the board of school directors, and they may dismiss teachers who, in their judgment, are incompetent or unfit for their position. In a few towns these offices are held by retired teachers of superior training and experience. In such cases there is some attempt at supervision of instruction, but in general the town superintendents are men who have little knowledge of school affairs. They are in no way qualified to supervise instruction, and the towns do not often expect or desire them to attempt this. In one town it was even stated that when the board appointed the superintendent it stipulated that he should not pay the schools more than the single visit each term that is required by law. Whether this stipulation was actually made or no, the superintendent had at any rate confined his visits to the minimum number. When, as in some of the towns, the principal of the high school has been appointed town superintendent also, the outlying schools are generally neglected. With the amount of teaching that nearly all of the high school principals have to do in the smaller schools,

they can seldom accomplish anything more in the way of supervision than to look after the disciplinary cases in the grades located in their own buildings.

The legislature of 1906 empowered the school directors of two or more neighboring towns, having an aggregate of not more than fifty nor less than twenty-five legal schools, to form a union for the purpose of employing a superintendent of schools. The school directors of the various towns forming such a union constitute a joint committee for the employment and direction of the superintendent and the apportionment of the expenses of supervision among the towns composing the union. Some towns are unable to gain admission into the unions, and there is no authority that can force the adjoining towns to receive them.

Since 1907 more than sixty per cent of the towns had joined unions for the purpose of employing professional superintendents. In 1912-13 there were 55 unions, including all but 60 of the towns. A total of \$77,005 was paid to the union superintendents in 1911-12, but of this amount the state refunded \$50,843, thus making the net expense to these towns \$26,162.

Of the 53 men and 2 women employed as union superintendents during 1912-13, 36 were college graduates, 18 had had some professional training, and 49 had taught one or more terms in rural schools. More than one-half of them had been high school principals immediately before their election as superintendents.

These men and women have been pioneers in this work. The system itself has been in operation so short a time that it is difficult to show by statistics just what effect it has had upon the schools. It is evident that the people of Vermont believe that the services of these union superintendents are valuable, for while a few towns for one cause or another have withdrawn from unions, the number of unions has constantly increased, and several towns that at first refused to enter unions are now most anxious to do so. In general the teachers believe in the system. They are loyal to the superintendents, and the younger teachers who are in towns outside of unions have almost without exception expressed their desire to come under such supervision.

Doubtless it has been the more progressive towns that have employed superintendents, so that too much emphasis should not be placed upon the differences that now exist between the towns within and those without the unions. That marked differences generally exist cannot be denied. They are noticeable in the general repair of the school buildings, the condition of the grounds, in the school equipment, the sufficiency of supplies, the character and condition of the text-books, in the enforcement of the compulsory education laws, and in the records of the progress of the pupils that are furnished to parents and kept as permanent school records. Teachers in unions regard themselves as members of a group and not as isolated individuals. By no means the least important effect of the system is to be found in the influence that some of the superintendents exert over their communities in matters relating to education.

The problem of distributing books and supplies is complicated because each town

in a union purchases its own. It frequently happens that different towns pay very different prices for the same articles. It is difficult to store them in one central place from which they may be distributed. In some instances the work of the superintendents has been greatly hampered by the failure of the school directors to secure sufficient supplies. In those towns where the supplies are ordered in small lots there is, in addition to a direct financial loss in the cost of supplies, a great loss in the efficiency of the schools, and a most uneconomic use of the superintendent's time. Where a year's supplies are ordered at once, as they are in most unions, the superintendents are developing methods of distribution that prevent inconvenience to the schools and the waste of their own time. The general tendency is to allow the union superintendent to look after this matter. In all of the towns that were observed there was a very careful use of the books and supplies. Often the superintendents transferred supplementary readers from one school to another four or five times a year.

The union superintendents generally require reports from the teachers. The amount and character of the information that most of these officers possess concerning the ages, grades, and progress of the pupils would do credit to city school systems. Nearly all of the union superintendents have devised more or less efficient systems of recording the progress of pupils. In some unions teachers are required to keep a detailed record of the work done each day. In the towns that follow a definite course of study the matter is comparatively simple. There is, however, no uniformity in these records, and consequently much confusion arises when comparisons are made. Each superintendent tends to have his or her own way of recording data, and in many cases does not use the system employed by his predecessors. In some unions the matter of requiring reports from teachers is carried to such an extent as seriously to hamper the teacher. In one union each teacher, in addition to keeping her own records, is required to send monthly reports to the parents, to file duplicates of these reports for a permanent school record, and to copy the names and standings of the children for the personal use of the superintendent. At least two-thirds of this work is unnecessary.

One of the serious problems in every town is to devise some system by which the progress of pupils may be recorded, so that new teachers may know where to take up their work. When teachers have been asked how they knew where to begin their work when they first entered the school, they have frequently replied that their only means of knowing was by asking the children. The waste of time and effort in the rural schools caused by going over the same subject is proverbial. It has often been asserted that keen boys, by giving new teachers the page at which they began rather than that at which they concluded the preceding term, have been able to go over the same subject three times in one year. These assertions have not been verified, but such conditions certainly are possible in many towns, some of them in unions. This situation is sufficiently unfortunate for the children who have previously attended the school, but it is nearly hopeless for the children who come for the first time from other towns. Often the teacher must try to grade these children on the basis of no more

definite knowledge than that they have "worked arithmetic in a book with black covers."

The keeping of the essential features of school records and reports by the union superintendents should be so systematized that they would be uniform throughout the state. A committee of the superintendents working in connection with the state superintendent could easily arrange such record forms. They should call for essential facts only. The keeping of records involving statistics demands a special ability, which is not possessed by all teachers. When compelled to supply such records of anything except the most essential facts, the expenditure of their time and energy is out of all proportion to the value of the results.

In matters pertaining to the actual supervision of instruction the union superintendents have been somewhat handicapped. The schools are often far apart, and the roads hilly and bad. The details of organization have demanded a great deal of their time. In the past, moreover, a large proportion of the superintendents have had no professional training. Their experience as high school principals has not contributed directly to their understanding of elementary school problems. In some cases it may even have given a distorted notion of the real purpose of the elementary school. The state board of education now requires professional training as a qualification for this office, and this should tend to improve conditions. One of the common methods employed by superintendents is to teach classes in the school they visit. When, as often happens, no subsequent comments are made, the effort fails to give results, because the teacher is not convinced that the class was handled more skilfully than by herself. Several teachers remarked that they did not know whether the superintendent was testing the pupils or trying to illustrate better methods of teaching. In a number of unions, however, there is unmistakable evidence of efficient supervision. The teachers and the superintendent are working together for the solution of problems of instruction, and a real professional spirit is developing.

In a preceding paragraph mention was made of the emphasis upon the formal side of school work as distinguished from the side of content. Too often the superintendents have encouraged this attitude. It is much easier to judge handwriting, the parsing and analyzing and diagramming of sentences, the accuracy of answers and processes in arithmetic, than it is to determine the efficiency of instruction in English composition, history, nature study, or geography. Not infrequently the only suggestions that a teacher can recall are that the children should read with expression, or should sit straight. It is quite probable that the teacher was conscious of the fact that the children were not reading or sitting as they should. What she most needed was help in arranging conditions so that they could read or sit properly. The superintendents are usually liberal in praising their teachers in general terms, but often they leave them as ignorant of the excellences of their work as they are of its defects.

In particular the superintendents are accustomed to attend to the products rather

than to the processes of instruction. The purpose of supervision is to improve teaching, and the supervisor should be governed by the same principles that govern the teacher, because their aims are the same. His duty, however, is the more difficult, because while he adjusts matters to the pupils, he must make the adjustment through the teacher. On the other hand, the teacher is concerned only with the pupils.

It is unreasonable to expect effective supervision when teachers change positions so often that they cannot become fully acquainted with the conditions under which they work. Neither can it be expected in those unions where a false notion of economy keeps the schools without sufficient supplies, or leaves in them such a variety of texts that the supervisor cannot possibly adapt the work to each of them. The making of a course of study is not a brief task. In many cases the superintendent has no option but to direct the teachers to complete a certain portion of the text each term.

When a union is first formed it is inevitable that a large proportion of the superintendent's time and energy must be devoted to administrative details connected with organization. The tendency will always be strong for the superintendent to remain an administrator rather than a supervisor of instruction. Escape from this condition must be found in better organization. Some of those who have held office for several years have already accomplished this. Many of the statements reported at the time the law creating this office was passed show that those responsible for it expected that efficient supervision would be a development. In this they were correct. If the present superintendents were to leave, their positions could not be filled at once with a group as efficient as they. It is now reasonable to expect a large improvement in the character of supervision. Where unions are well established, supervision cannot be justified solely on the ground that certain externals in the system are better conducted. The fundamental object of supervision is the improvement of instruction.

In each of the unions visited some form of teachers meeting was held. Sometimes all the teachers of the union meet together. Sometimes the teachers of each town meet alone. In some of the unions the teachers are expected to take part in the conference and to speak on some problem connected with their work. In others the superintendent uses the meetings as an opportunity to distribute the supplies and to talk over the work expected for the term. It sometimes happens that the meetings are of little real value. In one town where the teachers were required to dismiss their school and attend a teachers meeting, a talk with practically all of the teachers on the following day, and an examination of the notes that had been taken by several, revealed the fact that the net result of the meeting for these teachers was, first, that children should give the proper inflection when reading sentences requiring answers; second, that there should be a reading lesson at least once a week in each grade; third, that schools should be kept the full day; fourth, that the teachers were drilled on the names of the new members of the cabinet; and fifth, that the teachers were drilled in parsing, analyzing, and diagraming. These are meagre returns to expect for the salaries the state and town paid the superintendent and teachers for this day,

to say nothing of the loss of a day of school and the expense incurred by the teachers in reaching this meeting. There are a few teachers reading-circles.

Superintendents who have shown acceptable ability should be assured permanent tenure of office. In every case their dependence for office should be removed as far as possible from local influences. They are the representatives of the state board of education, and therefore their dismissal should depend in large measure upon this body. The unions should be responsible for the selection of the superintendents, as they are now, but if after one year the joint committee reflects the superintendent, then it should be possible to remove him only on direct appeal to the state board.

(g) The Condition of School Grounds, Buildings, and Equipment

1. Rural Schools

There are 1662 schoolhouses in use. Of these 1366 are one-room buildings. Owing to the shifting of population and the consequent union and discontinuance of schools, there are 425 unused schoolhouses in the state. These unused buildings vary from well-built structures in good condition to those so dilapidated as to be unfit for use. The possibility of needing these buildings again often makes it inexpedient for the town to dispose of them. During 1911-12 only 15 new schoolhouses were erected.

The estimated value of all public school property in the state is about four and a quarter million dollars. Taken as a whole, the rural school buildings in Vermont will compare favorably with those to be found in any of the older states. They are generally kept in good repair and well painted on the outside. The interior is not always in keeping with the exterior: the floors tend to be poor, the ceilings are often much discolored with smoke, and the walls are in need of paint or kalsomine. In general, the school buildings under direction of town superintendents were not found to be in good condition: they lacked paint and sometimes the interiors had not been cleaned for two years; the outbuildings were unsanitary, and often so out of repair that they provided but little privacy.

The rural school-rooms in Vermont are commonly lighted on three sides. When such rooms are filled, some pupils must occupy seats that are not properly lighted. The windows are generally fitted with opaque shades hung at the top, thus often covering the upper half of the window, the most important part, and rendering the middle of the room unfit for study.

Heat is usually provided by means of box stoves that burn wood. In all of the schools visited there was a generous supply of good seasoned hard wood. Sometimes the stoves were so placed as to be a source of discomfort to some of the pupils, or were so worn out that the smoke became a nuisance. Some of the towns have installed hooded stoves, and one of the rural schools visited was heated by a furnace in the basement. In only one or two instances did pupils or teachers complain of inability to keep warm, although in some schools the seats were placed against the walls.

A number of devices are employed for ventilating these one-room schools. The most frequent means other than windows is an opening directly above the stove into the attic. Some of the teachers have ingenious devices of their own that they place in open windows to keep the draught from the children. The most satisfactory arrangement seems to be flues in connection with hooded stoves. In some places the towns have gone to considerable expense to put ventilators in the schools, but the installation is unsatisfactory. In several such schools the ventilators had been closed with bran sacks because the children complained of the cold. Comparatively few teachers know how to use the ventilating system, and in no school where the system was other than the jacketed stove were any written directions for ventilation found.

Most of the boys and girls of Vermont are being deprived of the one thing that makes city parents envy the country schools, that is, adequate playgrounds. Not more than one-twentieth of the rural schools visited had a school yard large enough for a baseball diamond, and several of those that were of adequate size were so rough or marshy that the children used the road in preference. The schoolhouses have commonly been located beside the road, at some place where the land was of no value for other purposes. Some of the farmers are generous enough not to object when the children enter their fields to play; others make almost violent objections. The complaint has been made that the children in the rural schools of Vermont do not play, but this was not the condition in the schools visited. In fact, great ingenuity was shown by boys and girls in organizing their play. It is no small feat to arrange a ball game on an ordinary country road with its deep ditches filled with water. In some sections of the state certain societies are trying to direct the play of the school children. The value of such efforts is open to serious question. Play offers one of the best opportunities for children to follow out their own ideas. It cannot be urged too strongly that one of the most effective ways to get children to play is to give them something to play with, and a place in which to play. The law makes it possible to condemn property adjacent to schoolhouses for playground purposes. None of the school gardens that were observed were on lots that belonged to the school. Few trees or shrubs have been or could be planted on the school grounds.

The outhouses connected with rural schools always constitute a difficult problem. One in fifteen of the rural schools visited had a single outhouse, which is used in common by boys and girls. The location, construction, and care of these buildings is frequently unsatisfactory, and the sanitary conditions are generally very bad. The local health officers have the authority to compel the school directors to keep outhouses in proper sanitary condition, and some of the officers use this authority with the result that such towns leave little to be desired in the way of good conditions. The health officers are required to visit the schools at least once each year, but this is not sufficient to keep them in touch with these conditions, and teachers often do not know, or hesitate to report, such matters. It should be said, however, that the many evidences of the activity of the state board of health in connection with the schools indicate that

it is probably proceeding as rapidly as expediency allows. Its efforts are receiving increasing welcome throughout the state.

The old-fashioned home-made bench and desk have almost disappeared from the Vermont schools. Commonly four sizes of unadjustable desks have been purchased, and so arranged that the largest are in the rear and the smallest in the front of the room. By this arrangement few pupils occupy seats that correspond in height to their desks. In one town all of the largest seats are in one school and all of the medium-sized in another. In each of these schools there were children of all sizes. One school was supplied with the largest desks obtainable, which fitted none of the pupils, and the smaller children wrote with the desk coming close to their chins. A very large proportion of the children use seats so high that they cannot put their feet squarely on the floor while sitting upright. Some of the union superintendents have themselves rearranged the seats so that the proper desks and seats are together, but in general school officers have given too little attention to the matter of proper seating. Even though nothing were said about the influence that proper seating has upon pupils' health, the mere matter of personal comfort would make seating an important topic. Many of the graded and some of the rural schools have seats and desks that can be raised or lowered to suit each child. The first cost of this type of seats is somewhat more than that of the older non-adjustable seats, but they are far more satisfactory.

The teachers in the rural schools generally do such janitor work as sweeping and dusting the room. For this they are paid from twenty-five to fifty cents a week. In many cases it would be difficult to get any one else to do this work. The floors are neither painted nor oiled, and as very few towns supply anything to prevent dust while sweeping, the result is a suffocating cloud that settles on seats and desks, to be stirred up again when the teacher dusts. During the winter term most towns employ some one to start the fires. In one school, however, the teacher was required not only to care for the building and the fire, but also to split the wood,—the town did not even provide the axe.

The common drinking-cup is prohibited by law in Vermont. The children are expected to supply and to care for their own cups. A majority of the towns provide some kind of water tank with a faucet, but there are schools that have only a pail, into which each child dips his own cup, and still others where there is no provision for water in the school-room. In only a few schools is there any arrangement for keeping the cups from the dust of the room. The "cups" are of all kinds. Occasionally children have proper sanitary cups, but frequently they use the covers of their dinner pails, broken or cracked tea-cups, or other pieces of crockery. Attention is seldom given to the source of the water supply for the schools. The children merely get water from the nearest source, frequently from a creek or well that might easily be contaminated. Some of the local health officers obtain samples of the water used by the schools and have it analyzed.

2. *Graded Schools*

Much that has been said regarding the physical conditions of the rural schools would apply with equal force to the older buildings of the graded schools in cities and villages. The rooms in the newer buildings are generally well lighted, but even here opaque shades often interfere with the light. In one city school building the ratio of window space to floor space is only one to six, the main light coming from the rear. In a number of rooms in this building the windows are equipped with a parted wooden shutter that cannot be removed, but always occupies one third of the window space. The older buildings are very frequently without even the semblance of ventilation. The air was almost nauseating in some rooms that were visited. In the newer buildings care has been exercised in installing systems of ventilation, but the mere fact that a ventilating system has been installed is not a guarantee that it will be used. Most frequently the janitor is the determining factor in the situation. In one of the most modern buildings, where a first-class system of ventilation had been installed, the condition of the air in the school-rooms suggested an examination of the basement, and this showed that the fresh air inlet had been closed and the school-rooms were being supplied with air drawn from the coal bins and toilets. Very unsanitary conditions exist in the graded schools in some of the older buildings. The newer school buildings, however, have such hygienic conditions that some of them may well serve as models in these respects.

One feature of construction in many of the older buildings needs special mention,—the spaces under the stairs leading to the basement have been enclosed so as to make small storage rooms, which are often used by the janitors for waste paper and other highly inflammable material. Should fire start in these places, the only exit in many schools would be cut off. In the newer buildings this difficulty has been met by leaving such spaces open.

The seating in the graded schools seldom presents as great difficulties as it does in the rural schools. The children in each room are more nearly of a size, so that a great variety of desks is not always necessary. Many of the city and village schools are equipped with modern adjustable seats and desks. Some of the schools never adjust seats and desks, so that for all practical purposes they might just as well be fitted with non-adjustable seats; others, however, make an effort to adjust the seats as often as need arises.

Most of the graded schools visited were well cared for by janitors, although here, as in the rural schools, the floors were often neither painted nor oiled and there was little use of sweeping compound for laying the dust.

In most of the school buildings where running water is available some form of drinking fountain is usual. Where this is impossible, the proper care of drinking-cups presents the same problem that is found in the rural schools.

(h) Supplies

The towns purchase the supplies and books that are used in the schools. In every school visited there was a dictionary, although some of these were so dilapidated that they were not used. Some of the rural schools were well supplied with maps, others had only a map of Vermont. Nearly every school had a globe. The graded schools were usually well supplied with supplementary readers. Many of the unions have also an adequate number, but some towns not in unions are almost destitute of such books. The directors of some of these towns have met every request of the teachers for supplementary readers with the statement that the towns had no money, yet they purchased from one to four sets of a comparatively expensive reference work sold by agents, divided them so that one school has the volumes from A to F and another from G to L, and so on, and instructed the teachers to use these volumes as supplementary readers. A number of schools are without necessary political maps, although they are equipped with unnecessary blackboard maps. A variety of texts often makes it difficult to keep the progress of children reasonably uniform. In two unions the superintendent reported thirteen different arithmetics. Very few towns buy second-hand books. In all of the schools observed there was an economical use of whatever books and supplies had been purchased.

(i) Consolidation of Rural Schools

Sparseness of population in many townships makes the conduct of schools a complicated problem. Since 1893 the state has encouraged the consolidation of the smaller schools and the consequent transportation of children. Schools failing to maintain an average enrolment sufficient to cause them to be recognized by the state as legal schools receive no state aid. The state furthermore refunds a portion of the transportation expenses if the town spends a certain proportion of its assessed valuation for school purposes. In Vermont as in other states generally consolidation has met with decided opposition. It has often been feared that the closing of a rural school would tend to lower the value of the adjacent property, but in no place where consolidation was in successful operation was this argument considered valid. Often three generations of a family have attended the same school, and to close it is a somewhat trying ordeal, yet when once the parents have seen the advantages that consolidation brings to their children, they are even more enthusiastic than the children. This is almost universally true when the children are transported to graded schools. In places where transportation has not been satisfactory, the difficulty is often due either to the driver or to the conveyance. Parents charged that a rough boy driver had taught their boys to smoke, and tolerated and even encouraged disorder. Older drivers were sometimes intoxicated. Satisfaction almost always follows when a driver is either a father or a mother of some of the children. A second source of difficulty is the type of wagon or sleigh used. Wagons may be so crowded that the children are uncomfortable. In one case six pupils and a driver used a two-seated surrey, a little girl being compelled

to sit on the lap of an older colored boy. It is difficult to see how some of the conveyances could be surpassed for discomfort or unsightliness. Sometimes other loads also are carried and the children are made to walk up hills and over bad roads. Sometimes sufficient blankets are not supplied. The greatest satisfaction has been experienced with the "school barges" purchased by some of the towns. For fall and spring these are spring wagons with tops and side curtains for protection from rain and sun. The seats extend along the sides and are cushioned. For winter use they are sleighs with closed tops. In none of those observed was there provision for heating, but the drivers had often procured soapstone or pieces of hard wood, which they heated over the school stove and placed at the feet of the pupils on their way home. These same objects were heated in the homes of the pupils in the morning and used on the way to school. Parents are much more inclined to favor the transportation of older than of younger children, particularly when children have to walk to some central place in order to meet the barge. In a few cases children ride as far as six miles over very hilly roads and must start very early in the morning, not reaching home again until dusk.

4. RECOMMENDATIONS

Many of the conditions described in previous sections require no further comment. Two have been selected for more detailed treatment here.

A new course of study is needed. The steps that have been taken already in this matter are mainly in the right direction. It is not possible for any one person to be so fully acquainted with all parts of the state that he can make a course suited to all the conditions. Since the course of study is such an important factor in instruction, it should be made by those primarily concerned with instruction; namely, the teachers and superintendents, with the advice and direction of the state board of education. For this purpose experienced teachers and superintendents from all parts of the state should be organized into committees and brought together at an early date, in order that the general principles that shall govern the making of the course may be fully explained and illustrated. Not less than two years should be allowed these committees in which to prepare a tentative course, which should then be published and tried in the schools for a year in order to remedy its defects before final adoption. There should be at least two separate courses, one for the rural schools and one for the graded schools. Much of the subject-matter in these two courses would be the same, but the suggestions and applications should vary greatly. The various cities and unions might add appropriate modifications. This method of making a course of study will require a careful consideration of all of the conditions surrounding the schools, and will result in courses adapted to the needs of Vermont. Incidentally, it will greatly benefit all of those who take part in the work of their preparation.

With better courses of study in use, the problem of improving the quality of instruction involves the improvement of the teachers who are already in service. In the

section dealing with the Normal Schools and the Training of Teachers will be found recommendations which, if followed, will tend to give professional training to those who are about to teach, but under any possible system it will take a number of years to supply all of the schools with trained teachers. There are several ways in which those who are now teaching may be helped. Teachers meetings, when properly conducted, will be of great assistance. The work of the union superintendents will likewise be effective. There is further the possibility of reading-circles such as are now conducted in many states. The school system as now organized is capable of providing all these means. If there were definite prospects of financial or professional improvement, many teachers would attend efficient summer schools. The most important agency in the improvement of teachers, however, would be a number of highly trained, capable supervisors, employed by the state board of education, who would spend their time in the schools, assisting the teachers and demonstrating proper methods. This group of supervisors would form the nucleus of a highly efficient summer school faculty. Two summer schools could be held in different parts of the state, and the teachers encouraged to attend by the state undertaking to increase their salaries a given amount when two or more sessions had been attended, and either increasing the life of their certificates or changing their grade. These supervisors, further, would render valuable assistance in making the courses of study. Their services should be at the command of the superintendents. They should be women. The type of work expected of them could not be so well done by men, and the tendency would be for men to become mere inspectors of schools rather than actual teachers and supervisors.

MILO B. HILLEGAS.

IV THE SECONDARY SCHOOLS

SYNOPSIS

- I. THE SCHOOL MATERIAL
 - 1. CHILDREN OF SECONDARY SCHOOL AGE
 - 2. CHILDREN NOW IN SECONDARY SCHOOLS
 - 3. CHILDREN NOT IN SCHOOL
- II. THE SCHOOLS
 - 1. NUMBER AND SIZE
 - 2. DIFFERENTIATION
 - 3. DISTRIBUTION
 - 4. PHYSICAL EQUIPMENT
 - 5. PERSONNEL OF ADMINISTRATION AND INSTRUCTION
 - (A) The School Committee
 - (B) The Superintendent
 - (C) The Principal
 - (a) *Training and Qualifications*
 - (b) *Conditions of Service*
 - (c) *Supervision*
- (b) The Teachers
 - (a) *Training and Experience*
 - (b) *Conditions of Service*
 - (c) *Instruction*
- 6. THE CURRICULUM
 - (A) Educational Aspects
 - (B) Financial Aspects
- III. THE PRODUCT
 - 1. RECORDS AND THEIR FUNCTION IN EDUCATION
 - 2. THE UNFINISHED PRODUCT
 - 3. THE FINISHED PRODUCT
- IV. DEFINITION OF A SECONDARY SCHOOL
- V. VERMONT'S SECONDARY SCHOOL PROBLEM AND A SUGGESTED SOLUTION
- VI. SUMMARY OF RECOMMENDATIONS

INTRODUCTION

THE information that forms the basis of the present discussion has been drawn chiefly from two sources. The first is a series of questionnaires, that brought together the essential statistical facts relating to attendance, withdrawal, failure, curriculum, and program in the schools, together with the important items in the training and present service of the teachers. Replies to these were secured from all but two¹ of the 77 high schools in the state and from many of the academies. Those from high schools were tabulated, and have been analyzed in the following pages. The second and more important source of information was the personal visitation during parts of four months, March to June, 1913, of 36 out of the 77 high schools in all parts of the state and of seven of the 19 academies. Each visit usually included a conference with the principal and attendance upon several classes, so that about 110 of the 251 full-time high school instructors came under observation. Of the 36 high schools inspected, 18 had four or more teachers, six three teachers, seven two teachers, and five one teacher; five were remote from the railroad. An effort was made at every point to avoid purely formal standards and to reach a just estimate of the final inner and local worth of what was seen.

It will be noted that the treatment is limited almost exclusively to the high schools. While it is true that these are of primary interest to the state, and are the express object of the enquiry, there is no desire to ignore the important service that the private academies have rendered in the past, and are still rendering. There was, however, a manifest reluctance on the part of certain of these academies, notably one of

¹ Windsor and New Haven replied only in part.

the largest, to make public the information desired; it was therefore determined to confine the detailed analysis to the high schools. Except as a matter of statistics, this exclusion is not so important as might at first appear. Certain academies serve a special purpose in their affiliation with particular religious bodies, and on that account hardly fall within the limits of this study. Most of the others are in all essential particulars the high schools of their respective localities, and in so far as they were observed (Fairfax, Craftsbury, Derby, St. Johnsbury, Lyndon Centre), are in a general way included in the sum total of the impressions set forth below. In many cases it seems natural and desirable that these schools should pass into public control, following the procedure already repeatedly enacted throughout the state. They have nothing to gain from continued isolation.

I. THE SCHOOL MATERIAL

1. CHILDREN OF SECONDARY SCHOOL AGE

No accurate statement can be made as to the number of boys and girls of secondary school age at present in Vermont. The national census taken on April 15, 1910, gives the following gross figures:

OF SCHOOL AGE		AT SCHOOL		
<i>Ages</i>	<i>Number of Children</i>		<i>Number</i>	<i>Per cent</i>
Male	48,328	Male	33,449	69.2
Female	46,373	Female	33,396	72.0
6-20 <i>incl.</i>	94,701	6-20 <i>incl.</i>	66,845	70.6
6-9	25,962	6-9	22,951	88.4
10-14	31,451	10-14	30,391	96.6
15-17	18,765	15-17	10,565	56.3
18-20	18,523	18-20	2,938	15.9
		<i>Under 6 years</i>	2,768	
		<i>21 years, and over</i>	918	
		<i>Total at School</i>	70,531	

An attempt has been made to correlate these figures with the returns from the school census taken in June, 1910, but without success; the two sets of data are clearly incomparable. The result would appear to show that the school census is untrustworthy, especially for the secondary age, and the same conclusion was reached as the result of personal enquiry.

Taking the national census as a basis, and assuming the ages from 15 to 18 inclusive to be the normal ages for secondary schooling, the state has 24,939, or in round numbers 25,000, children to educate in this way. If the organization should be modified to meet the suggestion that the secondary school is properly the school for youth during adolescence, this number would be materially greater. With the ages 13 and 14

included in the new unit, the secondary school must face the task of training 37,500 children. These are the figures for 1910, but it is not probable that the numbers in 1913 would be materially different.

Of the racial, social, financial, and educational conditions of these children no systematic account is attempted by the school census. What can be gathered from the national census is of the most meagre and general character. It is only when brought face to face with the nature and dimensions of its own concrete problem that a school can hope to plan a solution. A thoroughly satisfactory school census, made under the supervision of the superintendent and affording information of real importance about the children, would go far toward bringing school and children together.

2. CHILDREN NOW IN SECONDARY SCHOOLS

It appears from the national census figures given above that, in 1910, at least 11,500 and probably 12,000 children, from 15 to 18 years inclusive, were attending a school of some kind between September 1, 1909, and April 15, 1910, when the census was taken. This would be approximately 48 per cent of the 25,000 from 15 to 18 years, inclusive. Of this number a large although uncertain portion were probably in the higher elementary grades. The net enrolment of secondary pupils from the state reported in high schools and academies in Vermont in 1912 was 6680.¹ With the addition of 186, the number of tuitions paid by towns in extra-state schools, the total becomes 6866. This total excludes such students as are attending high schools or academies independently outside the state, probably few. It includes students under 15 years of age and over 18,—a very considerable proportion, which, in the various high school censuses that have been secured, rarely falls below a sixth of the attendance and is often as high as a fourth. With the above total reduced by one-sixth, therefore, about 5722, or approximately 23 per cent, of the 25,000 children in Vermont from 15 to 18 years of age appear actually to be receiving secondary instruction in schools organized for that purpose.

3. CHILDREN NOT IN SCHOOL

There are, then, 77 per cent of the children of secondary school age whom the secondary school does not reach. To be sure, many may still be in the elementary school waiting for legal age to release them. Reasons will be offered later why they, as well as those below them, as far down as the seventh grade, should properly be in a school of different type from the usual elementary school. A considerable number may have attended the high school for a short time and then have dropped out because of

¹ The state statistics for secondary instruction, 1912 (page 192), give a total of 9296 "advanced students." It becomes evident, however, on examination of the items, that this total is reached through duplication and the inclusion of students in elementary schools. From the same report, pp. 610 and 616, $5367 + (1633 - 320) = 6680$

failure or lack of interest, or possibly because of financial necessity. Certainly a vast number of children are never reached by the secondary school at all. What does this mean for Vermont? Is it a rational notion that all children can profit by and should have a formal, well-planned adolescent education, just as all now agree that all children must without fail be given a thorough pre-adolescent education? If a kind of school can be devised where every boy and every girl may be reasonably sure of achieving genuine success in certain profitable directions, where they may have the attitude of success bred in them as a habit, is it worth while that every child should attend? To one to whom the affirmative of these propositions admits of no doubt, the further problem is two-fold: first, so to organize education that it may have a clear and undisputed value,—that it may reasonably expect a successful issue with every child; and second, to make this value clear beyond question to every parent. The parent must be taken on the ground where he stands; the value promised for his son or daughter must not be fictitious, or vague, or too far distant; it must appeal. Legal compulsion for the secondary school age may come as a social safeguard, but it is far better to lay upon the school the burden of making secondary education so vital, so indispensable to each child, that it will become general of itself.

II. THE SCHOOLS

1. NUMBER AND SIZE

The establishment for secondary education in Vermont consists of 77 high schools supported by public taxation and 19 academies operating on private foundations. These have all received the formal approval of the state superintendent. There will be found in Part III a table showing the high schools arranged in four groups according to the number of their full-time teachers, and indicating their enrolment and official classification in 1912-13.

In this table it will be seen that of the 5584 pupils enrolled in Vermont high schools in 1912-13, 3586, or 64.2 per cent, were in schools having four teachers, or more; 1095, or 19.6 per cent, were in three-teacher schools; 623, or 11.2 per cent, in two-teacher schools; and 280, or 5 per cent, in one-teacher schools. Schools of one and two teachers constitute 48 per cent of the whole number of schools; while if three-teacher schools be included, the small schools make up 70 per cent of the total number. This basis of grouping has real significance for a proper understanding of the situation, and the detailed treatment which follows will use it frequently.

2. DIFFERENTIATION

All of these 77 high schools are closely similar in type. They are organized in about the same fashion, are based upon the same fundamental traditions, and in

general have the same aims. The curriculum in each consists of the traditional college preparatory course, or its close derivative, more or less enriched with semi-vocational opportunities in commercial subjects, domestic science, manual training, or agriculture. The method and the spirit of instruction, however vastly they may differ in their essential quality in different schools, are yet remarkably uniform in kind and reveal the same general source.

A mechanical differentiation of high schools, provided for by law, recognizes four types of schools: "First class, a school of a four-years' course or courses; second class, a school of a three-years' course or courses; third class, a school of a two-years' course or courses; fourth class, a school of a one-year course or courses." In accordance with this provision there are at present 57 first class high schools; 3 second class; 15 third class, and 2 fourth class. The academies, 19 in number, are all of the first class but one, which is rated as third. A classification of this nature, although useful and consistent, is unfortunate in its terminology. "Four-year" schools and "three-year" schools would be clearly understood; "first class," as used here, is inevitably misleading. As there is no further classification, a school in the "first class" becomes for many minds a first-class school, which is quite a different matter. Seventy-four per cent of the schools are in the "first" class. Only one two-teacher school is not so listed, yet schools of this type must of necessity be of very inferior grade, as will be shown later. Steps should be taken to correct this confusion. At present the term "first class" is undoubtedly capitalized for false advantage. Parents and pupils are misled as to the real nature of the institution, and discovery of the truth is likely to be a rude awakening. With accrediting bodies outside of the state the names give a wrong impression of the state's educational sincerity. Worst of all, it is important to note that the state, by such definition, sacrifices its most potent means of educating a given community to a true idea of what an efficient school is. A genuine classification, on the other hand, based upon several counts which really determine efficiency, would arouse local ambition to secure the highest rating obtainable, or would, at least, reconcile a community to a low rating for good reasons. A skilful use of state aid to reward conditions leading to a high rating would assist in bringing about this result.

3. DISTRIBUTION

A high school map of Vermont shows a natural distribution of schools over the state, conforming well to the varying density of population, and in general accessible to the regions that they serve. Ten of the 19 one-teacher schools are well off the railroad,¹ while of the two-teacher schools, but 3 are so placed.² All the other high schools are directly accessible by railroad or trolley. It is not without interest

¹ Benson, Brookfield, Cabot, Corinth, Middletown Springs, Montgomery Centre, Pawlet, Shoreham, Waitsfield, Weston.

² Chelsea, Franklin, and Jericho.

to note that 6 of the smaller schools are about three miles or less from other larger schools;¹ and that 15 small schools are seven miles or less from other larger institutions.² There is direct railroad connection between the two towns in each of these cases, and at Winooski, West Rutland, and North Bennington there is electric service as well.

4. PHYSICAL EQUIPMENT

The grounds, buildings, and interior equipment of the 36 high schools visited were so varied as to make a brief description impossible. It is, however, this very element of variety that is chiefly significant. From a plot of ground barely wide enough to contain the building, the accommodations range through all degrees of spaciousness to an ample campus with an eleven-acre lot in its rear for school gardens and sports. One finds buildings varying in excellence from old wooden structures with high, deep-set windows, wretched light, and worse ventilation, to new schoolhouses of admirable design. Unfortunately the new is not always admirable: one building that had been occupied less than three months was already outgrown in some respects, and was full of mistakes that a state inspector might easily have set right in the plan, but which must now be endured for twenty years. The toilet facilities were, on the whole, good, but their arrangement was occasionally most objectionable, and their care in many cases deplorable. Children learn more from what they see and from the way they are treated than from anything they are told, and while much dogmatic instruction fails, the effect of such influences is sure. Janitor service is put to a severe test in March and April, when the schools were visited, but some of the buildings were apparently spotless, with clean, well-oiled floors and clear air. In others the janitor appeared to be active only at long intervals. This negative evil is, however, preferable to a proceeding witnessed in one of the largest schools in the state. Here the janitor vigorously swept the dry, unoled floors in the midst of the morning session and as pupils were passing. The principal declared that he had protested repeatedly, but with no result.

Equipment for instruction is present in the same extraordinary variety: one "first-class" college-preparatory school teaches the principles of physics entirely without laboratory or apparatus, all concerned depending with a mystified resignation on the text-book. Another school commands individual experiment tables and a fine demonstration theatre. Improvised devices of every description testify to the ingenuity and devotion of perplexed instructors and the "firmness" of the school committees; while here and there, on the other hand, really good equipment is inexcusably neglected. Libraries vary from a dictionary and an encyclopedia, supplemented by a few volumes loaned by the teacher, to collections of several hundred volumes. Here, too, a false relation seems often to exist; some schools are working a slender store of books

¹ Hyde Park, Pittsford, Proctorsville, Royalton, West Rutland, Winooski.

² Bethel, Gaysville, Highgate Centre, Newbury, New Haven, North Bennington, Orleans, Plainfield, Proctor, in addition to the preceding.

almost beyond their capacity, while others appear wholly oblivious to the existence of a considerable collection.

It is apparent to any one viewing the situation at large that the most pressing need of the whole system of physical equipment is some measure of standardization. Certain effects of carelessness, forgetfulness, ignorance, and unwillingness can be counteracted in no other way than by criticism from above. A poisonous ventilation, or a disreputable closet, should deprive a school of state support as soon as discovered; and it should be impossible for them to go long undiscovered. Such functions of state inspection are obvious and easy. The profitable use of the more difficult opportunities of a general officer depends upon the calibre, expertness, and industry of the man. The best way of doing many things in education is already well understood, but it is not easy to find a man with tact and persuasive power who will sit down with a school committee and convince them of the economy of ample grounds for a new schoolhouse; who will revise and elaborate plans for buildings, or suggest suitable rearrangements to an inexperienced principal. Yet it is for precisely such aid and information that schools should properly look to the state department, and money expended in personal service of this character will in the end be saved many times over.

5. PERSONNEL OF ADMINISTRATION AND INSTRUCTION

A. THE SCHOOL COMMITTEE

In the absence of any appreciable amount of state supervision, the local town authority becomes the ultimate determining body in all school problems, and is, therefore, of fundamental importance. The limited time of the enquiry prevented any extensive study of the school committee from the point of view of the secondary school.¹ Some impressions of the character of these bodies were gained, however, from interviews with their members and with school officers. In fully nine-tenths of the cases it was declared by the school principals, with the greatest apparent sincerity, that the committee was "a good one," "fine," "first class," and so on. In most schools official visits from members of the committee were rare, and the principals were given a free hand. Financial expenditures were invariably closely scrutinized, and the chief complaints were of what was considered by the schoolmen as false economy on the part of the committeemen. This is a point in the system of complete town control at which state supervision would be most beneficial. It was apparent, however, that on the whole the school committees take the position of defenders and promoters of the school. An able principal or superintendent can usually more than hold his own, and can easily become an educative force in the community.

¹ The school committee is discussed further in the study of the elementary schools.

B. THE SUPERINTENDENT

An account of the history and present status of the superintendency in Vermont and of its relations to the elementary school will be found elsewhere in this report. Thus far the contact of the superintendent with the secondary school has been slighter than with the elementary school, but is, nevertheless, of great importance. The efforts to place the entire school system of a locality under a single, competent control have, in many towns, broken down from lack of funds. To add suddenly to the budget a salary larger than any other in the system for purposes solely of supervision has been too great a step for most towns, even in association with others. Consequently men secured at a minimum salary have not always proved to possess adequate qualifications. As was to be foreseen where authority was not defined at the outset, friction has occurred between these men and the experienced, relatively well-paid high school principals, and in some cases still exists. Where the superintendent is really a trained administrator and the stronger man, as he should be, he has dominated the situation. Sometimes the field has been divided amicably, each wisely profiting from the other's suggestions. Undoubtedly, in a period of transition like the present, each situation should be arranged on its merits and no attempt be made to push theory too far. It is, nevertheless, beyond question that each community or group school system should have its one thoroughly trained supervising head. Especially is this true now with the gradual increase of emphasis upon the social basis of education. If the school is no longer to be the luxury of the selected few who can fit it, but society's best tool for making every item of humanity as broadly and happily productive as possible, such an enterprise must be in charge of a responsible, expert mind capable of viewing and meeting the problem as a whole. Only so can the superintendent interpret efficient education to the public and create a public opinion that will support more and better schools, at the same time that he seeks to develop schools increasingly worthy of support.

It is, moreover, a great advantage to every participant in school work to have leadership of this sort; the principal of the high school is not the least benefited. It is almost as inevitable as it is an unfortunate tendency for an ambitious and able principal to conceive of his school as a fine machine, the first business of which is to run smoothly and with apparent success. Pupils who do not take to the traditional subjects, and hence do not fit in the machine, make trouble, and are discarded with scant regret. To destroy the sanctity of this mechanism and to persuade the principal to teach children—all children—instead of feeding the machine, is usually the task of the superintendent. Further, in the smaller schools with rapidly changing principals, a superintendent is indispensable for the continuous success of the school. Of the 33 one-teacher and two-teacher schools that have been in operation over one year, 22, or 67 per cent, had new principals in 1912-13. Even in the first group of large schools, 7 of the 23 principals, or nearly one-third, are new men.

Thus, that the town may have an intelligent and responsible head for its whole educational undertaking; that some one commanding the complete situation may be in controlling relations with all workers in the system; and finally, that schools may enjoy a steady and continuous policy, independent of rapid changes within;—all of this calls for a strengthened, unitary superintendency, including the secondary schools.

C. THE PRINCIPAL

(a) *Training and Qualifications*

The facts concerning the training, qualifications, experience, and present performance of the high school principals in Vermont have been gathered from their own reports to the commission, and may be found summarized in Part III. From this it appears that of the 23 principals of larger schools only four have had any formal pedagogical training, and only one such training as might be expected of a professional educator in a supervisory position. This does not, of course, do complete justice to the situation. The median age of this group is high (37 years), and the development of educational training for supervisors is recent. Moreover, there is every reason to believe that most of these men have done such private study as to keep them familiar with current educational movements and problems. This appears clearly in their work. Nevertheless, private study is an uncertain factor to rely on when thorough training can be had, and men going into supervision hereafter should be expected to offer evidence of a systematic study of their profession. Six report no training whatever subsequent to their college course. This, if true, seems difficult to excuse in a day of numerous and effective summer schools.

Inasmuch as the work of principals in Vermont schools is largely instruction, it seems appropriate here to note their apparent preparation for teaching, as far as that appears in their reports. These show that of the 90 subjects¹ now being taught by the principals in the larger schools, only 17² received fairly continuous attention in their preliminary training, that is, were studied more than two years in college, and became, therefore, in a sense, specialties. Seven of the 90 subjects were taught without any formal preparation whatever; the instruction in 12 depended on courses taken in high school; and 54 had as a basis less than two years of college work, — many of these but a term or two. Three principals replied ambiguously, but received liberal benefit of doubt.

Any one familiar with high school conditions will understand that these returns

¹ This number is the aggregate of all of the subjects taught by all of the principals. Languages are each considered as one subject; the different fields of mathematics, history, and science are considered as different subjects; commercial branches are grouped as one subject. Two years of college work in any one science counted as advanced preparation. In mathematics, over two years of college work in any form of mathematics counted as advanced preparation for each high school subject in mathematics.

² Latin, 5; English, 4; Mathematics, 3; Greek, 2; German, 1; French, 1; Chemistry, 1; 13 out of the 23 teachers had no "special" subject.

are fairly representative of the whole country. The demands of a possible teacher's profession have rarely troubled the college student in making up his course; he browses with clear conscience in many fields, and when, finally, he determines to teach, a sharp spurt called "working it up" occurs during the vacation previous to the "teaching," if not indeed frankly in course of the "teaching" itself; and shortly he stands forth—an "experienced" teacher. Few indeed are the teachers in this country who have not been through this process, and who do not boast of their results. When, moreover, the teacher achieves a principalship, he has long since learned to move blithely from one subject to another almost regardless of his knowledge. This is half expected, as the principal must needs step in as substitute; but not seldom the sheer desire for variety or the attraction of a particularly good class induces a teacher to lay utterly incompetent hands on a group of pupils. The secret of all this is to be found in the text-book system, in some few respects the pride, but in many more the despair, of sound American education. It is delightful, having acquired the suitable pedagogical manner and vocabulary, to assist the text-book in running a good class! Needless to say, were a teacher required to organize and to present his material effectively, independently of text-book compilers, it would be essential for him to learn his lesson years instead of hours before the recitation. There can be no doubt that the greatest need of American secondary education to-day is thorough reconstruction at this point,—the preparation of the teacher,—and Vermont should meet it vigorously. Out of 90 subjects that the head-masters of the largest high schools in Vermont are teaching, all but 17 are being taught with a formal preparation far inferior to that which a German secondary teacher receives before entering the university. On top of this training the German puts four years, at least, in special study, largely concentrated on the one major subject and two minor subjects that he expects to teach. Then, after a full year's study of the strictly pedagogical side of his work, and another full year of practice-teaching under critical supervision, he is ready for appointment. Naturally he speaks with authority on the subjects that he teaches; he is not allowed to attempt instruction where he cannot. To be sure his *Gymnasium* is of somewhat greater range than the high school; he stands to-day, nevertheless, as he has long stood, a profoundly significant example to the American high school of how a teacher should be prepared.

Sixteen, or 20.8 per cent, of the secondary principals in 1911-12 were without previous experience in teaching or supervision. One conducted a three-teacher school, seven two-teacher, and eight one-teacher schools.

(b) *Conditions of Service*

The conditions under which high school principals work are, on the whole, an important criterion of the level of the whole service. Two principals in the state receive over \$2000 a year. The highest salary paid is \$2400; the lowest paid to a principal in a school of four or more teachers is \$1050. Between these limits range the sal-

aries in the 23 largest schools in the state, with a median at \$1500. When one considers the limited size of the cities and towns where the schools are located, it will be admitted that these salaries are relatively good. In only seven cities and towns is there over 7000 population; six other places have over 4000. Unfortunately, however, the quality of personal service is not a relative matter; it cannot be too strongly emphasized that \$1500, which may look large in a town of 4000, is not the equivalent of \$3000 in a town of 50,000. With certain undetermined variations due to local conditions, towns get, in trained service, not a relative value in proportion to their wealth, but an absolute value according to what they pay. A thousand-dollar high school principal is, after all, probably worth a thousand dollars. And a town that concludes to pay \$2000 instead of \$1000 for its principal can be fairly certain of getting an article the increased value of which is commensurate with the increase in price. From an absolute standpoint, the salaries of principals in Vermont are low, and better training and greater skill are indissolubly bound up with greater appropriations.

A further important consideration that conditions the success of a principal is the continuity of his service. Assuming that he has ideas and initiative, and can develop a "policy" for the growth of the institution, it is indispensable that he have some time in which to work this out. He must have a chance to study his committee and community; to understand the pupils and the parents; to select his assistants and organize their work; in short, to lay out his campaign on long lines befitting the importance of the task. Clearly, the man who is principal "by the year," and views himself and his work in that light, is nothing but the hired man of his committee. Whatever he does must of necessity lack perspective, coherence, and breadth of purpose. He takes no root either in the school or in the town, and thereby sacrifices a great part of his potential effectiveness.

The condition of Vermont high school principals in this respect is shown in the following table:

TENURE OF POSITION AMONG HIGH SCHOOL PRINCIPALS

	Changes in 5 years 1908-12			Changes in 2 years 1911-12		
	<i>Possible Changes</i>	<i>Actual Changes</i>	<i>Per cent</i>	<i>Possible Changes</i>	<i>Actual Changes</i>	<i>Per cent</i>
Schools with four or more teachers.....	92	22	23.9	23	7	30.4
Schools with three teachers.....	68	19	28	17	4	23.5
Schools with two teachers.....	70	40	57	18	11	61.1
Schools with one teacher.....	40	30	75	15 ¹	11 ²	73.3
	270	111	41.1	73	33	45.2

It appears from this that nearly one-half (45 per cent) of all the high schools changed their principals during two years,—the larger ones to the extent of 30 per

¹ Four schools have been organized but one year and therefore had no change of principals.

² One school had three principals in two years.

cent; the smaller schools were fairly kaleidoscopic (73.3 per cent). So far as is known, this rapid shifting from place to place is not due to fickleness on the part of the school committee. Natural promotion to a better paid principalship or to a superintendency seems to have been the usual course. If this is the case, it becomes clear that this weakness is economic in character; a better paid man would stay longer. One cannot blame a school committee for preferring to the prolonged services of one poor man single years of service from several good men in the making; at present this seems to be the only solution where funds are limited. As a result, the school committee must furnish whatever continuity there is and seek to correlate the efforts of its flitting servants as best it may, while the children must be contented with a pedagogical hash of widely varying ingredients. The situation is a strong argument for a permanent and capable superintendent, but even he is far from being a satisfactory substitute for an able principal through whom the school can express itself year after year. The real solution of the problem lies in a fundamental reorganization. The institution which these communities think they possess, and which their little schools now feebly shadow forth, is completely out of the question for them. No town that now runs a two-teacher high school can hope to finance the kind of secondary education that its youth deserve and ought to have; and its experience with its principals is only a part of its failure in this direction. It seems probable, however, that each of these towns could maintain an institution of somewhat different type, less pretentious, indeed, but far more genuinely effective, where an adequately trained teacher could be paid a fully adequate salary to become an indispensable fixture in the life of the community. Suggestions with this in view will be found in a later section.

(c) *Supervision*

The primary duty of a principal is supervision, an increasingly complex task. It is clear, however, from an inspection of the table referred to¹ that the principalship in Vermont is predominantly a teaching position. All but four high schools require 20 periods or more of class work per week from their principals,—an amount that is normal for full-time teachers; all but 11 require 25 periods or more,—the maximum for good teaching. In all but five schools principals are teaching three or more different subjects with, presumably, the amount of preparation which that implies. In all but ten this increases to four subjects. Omitting the ten largest schools, the eleventh may be taken as typical, with an enrolment of 129, an average class membership of 18, and five full-time teachers. This typical school of the first group presents the spectacle of a machine that almost runs itself. One-third of the teachers are new,² yet the directing head is fully employed teaching five out of seven periods every day and actually handling more subjects than his full-time assistants. Schools can be held together under these conditions, but there is inevitably a large element of waste, of friction,

¹ Page 70.

² In twelve schools of the group from 10 per cent to 75 per cent of the teachers are inexperienced.

and of maladjustment. No principal so employed has the opportunity or energy to make a proper study of his teachers and to guide or reinforce their work; and it is quite out of the question for him to attempt an adequate individual handling of the pupils. In the larger problems of school policy, such as promoting the influence of the school in the community, he must of necessity be greatly weakened. Hence, as is natural, the important questions fall more and more into the untrained hands of the school committee, and the principal becomes merely a head-teacher. As such, it is the writer's repeated observation that he is overpaid. Between his salary and that of his first assistant there is a difference of from \$300 to \$1300. Yet his teaching is often little better than that of his best assistant; often, indeed, it is not so good, and is rarely so superior as to warrant so great an additional expense. In other words, in these "head-teachers" there is going to waste much excellent supervisory ability,—capacity for service which no one else can render, while they are performing work that could often be done as well or better at one-half the cost. It is almost impossible to make the average school committee, composed of laymen, understand what a good principal is. On the occasion of the writer's visit, a principal of a school of over 200 pupils showed a letter received that day from a school committee-man, criticizing him for not doing more "work." This principal had a regular program of 14 hours, which was usually increased to 17 or 18 by enforced substitution. The work of a principal, properly done, ensures that, within the limits of his appropriation and in coöperation with the superintendent, the education given fits the community in kind and quantity, that each teacher is working as effectively and happily as his ability permits, that each pupil is so placed as to feel a sense of power and achievement, and that each parent is in sympathetic and intelligent coöperation with the school. This is an arduous, difficult, and time-taking task, and it is vain to expect its performance of a "head-teacher."

In the one, two, and three-teacher schools, the status of the principals is so nearly that of teachers that they can most conveniently be discussed under that head.

Personal observation of principals in 35 high schools, accompanied almost invariably by an extended conference with them, leads to the following conclusions: They are a hard-working and wholly devoted group of men and women, personally attractive and sincere. Their spirit is usually progressive, but owing to recent arrival, inexperience, or overwork, and the resulting dependence upon their respective committees, many of them are not progressing. They are, almost without exception, open to intelligent suggestion or sympathetic criticism, and many show marked eagerness for it; an able and forceful state inspector would find them anxious to coöperate. In instruction, as already noted, they are not greatly superior to their best assistants, except sometimes in the smaller schools; for the important duty of a principal they find little time; with instruction and clerical tasks they are heavily burdened in a wasteful direction. Many have marked powers of leadership and, if given reasonable opportunity, would prove exceedingly capable supervisors.

D. THE TEACHERS

(a) *Training and Experience*

As in the case of the high school principals, the commission received information concerning the general and professional training and experience of every full-time high school teacher in the state. While some of the returns were indefinite and susceptible of varying interpretations, it is believed that, on the whole, the summary that is given in Part III fairly represents the situation.

Not counting the principals, 87 per cent of the full-time secondary teachers in Vermont are women. The median age of the group, both men and women, is twenty-six years. A majority of the teachers received their college education and even their secondary training outside of Vermont,—a situation characteristic of the past, but now being modified.¹ In contrast with the principals, of whom but 25 per cent had received any pedagogical training, 50 per cent of the teachers have had serious courses in educational theory or methods, other than history of education or so-called “teachers courses” in various subjects. Four of the number have done graduate work in education. This difference is due chiefly to the large number of young teachers who have taken the educational courses offered by various colleges for the first time during recent years. The fact reveals, furthermore, the strong and promising inclination of the prospective teacher to avail himself of all possible professional preparation, and that, too, without the slightest increase in his formal eligibility to appointment. Were the qualifying authority to take advantage of this training and require a given amount of appropriate professional study for all candidates for certificates, it would foster an already strong and highly desirable tendency. In respect to experience, the returns for the year 1912–13 show that 19.4 per cent of the 175 teachers were teaching in secondary schools for the first time. The number who were inexperienced in 1911–12 and are still teaching in Vermont high schools is 26, or 14.9 per cent. Among the 23 larger schools the percentage of inexperience is 13.8 per cent; among the two and three-teacher schools it is 22 per cent and 38.2 per cent respectively.

(b) *Conditions of Service*

General conditions of service as applied to teachers measure the character of a school system even more effectively than in the case of the principals. Stability of tenure, reasonable requirements permitting and demanding self-development, an expert supervisor to make a teacher's work count, and an adequate salary to ensure growth and security,—all these are conditions on which efficiency thrives, and without which it is well-nigh impossible. Vermont high schools are open to criticism in all of these respects.

Changes in personnel in 1912 numbered 67 out of a possible 175, or 38.3 per cent. The schools of four teachers or more showed 31.7 per cent of new teachers; the three-

¹ See table in Part III.

teacher schools, 52.9 per cent; the two-teacher schools, 55.5 per cent; and the one-teacher schools, 73.3 per cent. Three schools of the first group had no new teachers; eight had 50 per cent or over; the median number of new teachers in the first group was 33.3 per cent. If it be assumed that the figures quoted represent changes¹ rather than additions, and that they are typical of any year,² it would appear that Vermont's 23 largest schools undergo changes equal to their entire teaching staff slightly oftener than once in four years; the smaller schools, once in two years. When it is remembered that these are full-time teachers only, dealing with the main branches of instruction, it is clear that the effect of this continual migration is serious. A boy at graduation would bid farewell to no one of the teachers who greeted him when he entered. Or, if one or two standbys remain, other departments have witnessed annual substitutions. This means a continual change in methods and personalities in the early stages of the same subjects. "Getting used to the teacher" is a continuous task for the pupil, while, on the other hand, the different procedure of the "last teacher" constitutes a no less continuous problem for the next. With such incessant shifts at its vital parts, a school simply cannot come to any degree of self-consciousness; it has no texture or coherence for its pupils, and is a weather-vane instead of an influence in the community. Could a staff of effective high school teachers really strike root in one of these towns and develop gradually to the full exercise of their powers, the town could have no greater permanent factor in its progress.

A table in Part III gives the average number of class recitations per week taught by the full-time teachers in each school. The limits within which a teacher may be expected to do a high grade of work naturally vary with the character of the subjects taught, the amount of special preparation necessary, the quantity of written work to be reviewed and corrected, and the number of individual problems, the amount of bookkeeping, and the strain of class attention which the size of the class involves. It is generally agreed, however, that, with a normal class membership of 20 to 25, no teacher can hope to give successful secondary instruction with a program of more than 25 class periods per week, and 20 is much better. For teachers of English under present methods even this latter number should be reduced. Beyond 25 periods, quality deteriorates rapidly and gives place to the merest hack work, however well meant. It is assumed, furthermore, in setting up this maximum, that a teacher is teaching one or two groups of subjects for which he has had special preparation. Three classes of Latin and two of German constitute a program preferable in all respects to five classes of Latin; but good work cannot be done with a program made up of senior Latin, junior physics, second-year history, first-year English, and algebra. It is only necessary

¹ To what extent these are additions instead of changes is uncertain. High school enrolment in the schools here included shows a net gain of but 44 pupils in 1912-13 over 1911-12. It is not likely, therefore, that the corps of teachers has materially increased. The report of the state superintendent for 1912 (page 611) gives the number of teachers in 1911-12 as 269, which, with correction for training-class teachers (here omitted) and Fairfax (here included among academics), is about the present number; but it is not known whether these were all strictly full-time teachers. There are no exact data covering this point.

² 26.8 per cent of the present (1912-13) teachers in the larger schools were new to their positions in 1911-12.

to glance at the table mentioned to see how Vermont high school requirements compare with this standard; 60 of the 77 schools are burdening their teachers with an amount and variety of work which makes excellence impossible. Unfortunately, a low quality of teaching is not readily detected by the lay mind, and under such conditions formalism, cant, and ignorance are likely to overcome the best intentions.

In speaking of the principals, notice was taken of their limited opportunity for supervision. This situation reacts first and most disastrously upon the teachers. At the present time, in spite of the increase of more or less conventional courses in the theory of education, few colleges or universities supply the opportunity for what must be considered the least dispensable portion of a teacher's training, namely, practice-teaching under expert criticism. The average teacher is rarely so fortunate as to teach only such subjects as he has thoroughly prepared in college, and his professional technique consists of a dim composite consciousness of all the varieties of instruction that he himself has enjoyed. He begins, therefore, with college methods, because they are freshest in his mind. To protect his scholars from injury and loss of time, if for no other reason, an inexperienced teacher has a right to expect constant and intelligent criticism and advice based upon the careful observations of his principal. For this, Vermont principals, except four, have no time, so that the young teacher inevitably stumbles along with procedures that are crude or wrong, and must stand or fall on the somewhat coarse and inadequate issues of whether he can "govern" or is popular. The real waste for the pupils can only be imagined.

In respect to salary, finally, the same observations hold as in the case of the principals.¹ The median salary of full-time teachers in the 23 largest high schools in Vermont is \$650 per year. The most liberal school in the group pays \$844; the lowest average paid by a school with four or more teachers is \$431. These are by no means minimum salaries for towns of this size; but even at these salaries good teachers cannot often be secured, much less retained. Vermont is still paying "wages" to her teachers instead of salaries, and the smaller towns bargain blindly in that spirit. Adding \$100 to a salary under \$1000 earns a return out of all proportion to its absolute value, and the town paying \$431 could increase the effectiveness of its teachers enormously by dividing \$400 more among them. Among the three-teacher schools, \$625 is the maximum average, while one three-teacher school pays its assistants less than \$10 per week. Two-teacher schools show a maximum and minimum of \$550 and \$360 respectively. Certainly the scale of salaries paid should form a capital item in any future scheme for approval or classification of high schools.

(c) *Instruction*

The questions of what is taught and how well it is taught are of course fundamentally important. The curriculum will be discussed later. The writer's impressions of the way in which it is applied were drawn from contact with ninety-five teachers, who

¹ See table in Part III.

were met in short conferences or in the course of class-room instruction, or both. Estimates based upon brief single visits to class-rooms must, indeed, be used with discrimination; in some respects, however, they are as conclusive as an exhaustive acquaintance. In the great majority of cases, the personality of the visitor and the purpose of his visit were unknown. The call was intended to create as little disturbance as possible, and usually made no apparent impression on the routine of the class; the caller entered and retired without ceremony. It must be said, as a result of this experience, that there can be nothing but praise for the personal character of these teachers. Almost without exception they gave the impression of being high-minded, naturally capable and painstaking men and women. Deep interest in their pupils and devotion to their progress and welfare are qualities that go far toward making up for any possible lack of information and skill; and in such qualities Vermont teachers are peculiarly rich. In the quality of the instruction there appeared almost as wide a variety as was noted in physical equipment. On the whole, it may safely be said that the work done is honest, faithful, and painstaking; professional it clearly is not, except frequently in the half-dozen largest schools and in occasional instances in the others.

To be rated as "professional," it is believed that instruction must possess at least the following features in considerable degree: first, knowledge of the subject-matter must have become so comprehensive and automatic that the conscious purpose to instruct may always be uppermost and unembarrassed; second, class procedure must exhibit a reasonable insight into individual and class problems and a skilful application of the best modern experience in their solution; third, the performance, both of teachers and pupils, should proceed with such assurance as to be stimulated, or at least undisturbed, under critical observation. Comparison with the medical profession in this regard is helpful and not unfair. To the surgeon professional behavior involves a technique that has become second nature, an adequate and accurate knowledge of modern surgical methods and resources, and a confidence that is finely challenged by attendant critics. The teacher should be held to a standard fully as high. Instruction in Vermont high schools is exceedingly vulnerable at these points, as it is, indeed, in the great majority of American high schools. Most of the teachers have the general high ideals and the goodwill bred by their college course. For their specific tasks they are untrained, and must grope their way either out of the service or into a post commensurate with whatever skill hard experience may give them. A majority of them are teaching subjects in which they are ill prepared; their range of information is therefore limited, and their application of it is likely to be timid and forceless, or else incorrect.¹ There results, therefore, to an

¹ Full-time teachers report themselves as teaching an aggregate of 581 subjects, in 39 per cent of which they have had two years or more of college preparation; in 42 per cent they have had less than two years, usually in scattered courses; 14 per cent rest on high school courses, and 5 per cent had no formal preparation. It is, of course, not impossible that a teacher has fitted himself privately in a course for which he has had but elementary formal preparation; also that there may be teachers with so-called "advanced" preparation who are much less successful with it than others with

extreme degree, the great American pedagogical vice,—slavish dependence upon a text-book.¹

Under such conditions teaching is not instruction; it is assigning pages, hearing lessons, and recording "marks." Forty periods of this sort of recitation per week are not exhausting; while really to instruct demands power and nerve, and few normal minds can retain their vigor under more than 20 to 25 periods of it per week. The conditions indicated are reflected unerringly in the class work. Instead of striding forward with the confidence of sure knowledge and trusted power, as every group of youth loves to do if expertly led, the classes creep; response is slow and furtive; answers have to be "pumped" or suggested, and spontaneous reaction to the content of the lesson is unusual. The effect of this on the pupil is depressing or hardening. In so far as instruction fails to arouse a genuine interest and develop a pleasurable sense of power, it is not only negatively useless, it is a positive discouragement to a child's education, however loyal he may be to the teacher personally. The waste at this point is certainly very large. Part of the blame is unquestionably due to the curriculum, although even so it is the very essence of non-professionalism to be helpless in the grip of a rigid curriculum. Part of the blame is no doubt due to the maladjustment by which children are in courses that they have no business to attempt. Even for that part of the waste for which the teachers are clearly responsible they cannot be said to be culpable. Few of them have ever had the opportunity of observing skilful secondary instruction with a view to studying it as such, and practically none has ever practised teaching under skilled criticism. A defective system that permits them to teach what they have not studied thoroughly, and, providing no critical leader, loads them with an excessive number of classes, does the rest.

The remedy for these conditions seems axiomatic,—the same remedy that has been efficacious in all successful school systems. First, require that the teachers know thoroughly the subjects they propose to teach. Second, require them to teach only those subjects. The first point, furthermore, involves a factor of great weight that is worthy of capital emphasis. No man proposes to entrust his body to a surgeon who has seen no hospital practice or never attended a clinic; in medicine we are certain that book knowledge is but a very partial element in practical skill. There would seem to be no more reason why one should entrust a child to be taught to a person who has no clear consciousness of what successful instruction is, and has never actually done the work with a competent critic at hand to tell him wherein he was successful and wherein not.

a mere high school fitting or no formal training at all. On the whole, however, it is strongly probable that the above figures represent the general level of professional training with fair accuracy.

¹ This is as true of those who know the lesson "without looking" as of those who scan the book for answers, and the latter are not rare. Any teacher who has not acquired from many sources a comprehensive knowledge of his subject apart from any books, who has not thoroughly organized it in his own thought, and who cannot intelligently and confidently readjust it to the current needs of a given group is open, in some degree, to this charge.

6. THE CURRICULUM

A. EDUCATIONAL ASPECTS

The curriculum at present in use in Vermont high schools is based largely upon a series of courses drawn up by a committee of the Vermont Schoolmasters' Club, and approved and published by the Department of Education in July, 1907. It is as follows:

<i>Classical Course</i>		<i>Latin Course</i>		<i>English Course</i>		<i>Commercial Course</i>	
<i>Required: (75)</i> ¹		<i>Required: (50)</i>		<i>Required: (42)</i>		<i>Required: (57)</i>	
English, I-IV	12	English, I-IV	12	English, I-IV	12	English, I-IV	12
Algebra, I	5	Algebra, I	5	Algebra, I	5	Algebra, I	5
Geometry, II	5	Geometry, II	5	Geometry, II	5	Geometry, II	5
Ancient History, I	5	Ancient History, I	5	Ancient History, I	5	Ancient History, I	5
Latin, I-IV	20	Latin, I-IV	20	Phys. Geog. & Adv. Phys.		Com. Geog. & Cor., I	5
Greek, II-IV	15	Rev. Math., IV	3	or Botany, I	5	Bookkeeping & Com.	
Mod. Lang., III, IV	10	<i>Elective: (25)</i>		Mod. Language, III, IV	10	Arith., II	5
Rev. Math., IV	3	Modern Language, II-IV	15	<i>Elective: (30)</i>		Stenog. & Type., III, IV	10
		2d Modern Language, IV	5	Modern Language, II	5	Eng. Hist. & Com. Law, III	5
		Med. & Mod. History, II	5	Med. & Mod. History, II	5	Adv. Am. Hist. & Civics, IV	5
		Com. Arith. & Botany, II	5	Com. Arith. & Botany, II	5	<i>Elective: (15)</i>	
		Physics, III, IV	5	Physics, III	5	Med. & Mod. History, II	5
		Chemistry, IV	5	Chemistry, IV	5	Mod. Language, II-IV	15
		Adv. Alg. & Sol. Geom., III	5	Eng. Hist. & Com. Law, III	5	Physics, III	5
				Adv. Alg. & Sol. Geom., III	5	Chemistry, IV	5
				Am. Hist. & Civics, IV	5	Adv. Alg. & Sol. Geom., III	5
				Astron. & Geol., IV	5	Astron. & Geol., IV	5

These courses are published as "suggestive rather than compulsory," but with minor variations they are very generally followed.² The first, the classical course, has practically disappeared. Greek, its distinguishing feature, is taught in but eight schools to a total of 38 pupils. The Latin course is at present the mainstay of Vermont's secondary system of education: only two schools give no Latin; 41 per cent of the total high school enrolment (1912-13) are studying Latin, and 54 per cent of the freshmen are entered in that course. The two remaining courses, the English course and the commercial course, enrolled in 1911-12 respectively 38 per cent and 16.9 per cent of the pupils. The former is found in all schools, and constitutes the minimum undertaking of a high school; the latter appears in its complete form (*i.e.*, covering four years and including stenography, typewriting, etc.) in 19 schools, while courses in bookkeeping are given to advanced classes in four additional schools, and to the first and second year pupils in 21 more. Thirty-three schools teach no commercial subjects.³

¹ Arabic numerals indicate periods per week of recitation through the year. Roman numerals indicate the year or years of the course when the subject after which they stand is required or, if elective, becomes available; "IV" is the senior year.

² An action of the Schoolmasters' Club, March 10, 1911, approved by the state superintendent, has introduced a uniform system of "credits" for promotion and graduation which furnishes one means for securing greater elasticity. This is, of course, a desirable step, but success in that direction depends on many other factors.

³ These figures, except for the membership in the English and commercial courses which was calculated from the Vermont School Report of 1912, are drawn from the program sheets submitted to the commission; they show, with the aforesaid exception, only what was actually being done in 1912-13.

The nature of these four courses becomes clearer when one compares them. In spirit, if not chronologically, the last three are all derived from the first. The Latin course seeks a substitute for Greek; the English course, for both Latin and Greek; and the commercial course abandons all foreign language requirements, introducing at the same time a vocational motive. As is well known, the order of educational prestige has been the same, the best minds being directed to the Latin or classical courses, while the students in the English and commercial courses lacked distinction. Four subjects are common to all courses: English, algebra, plane geometry, and ancient history. For reasons of economy, schools have never been able to differentiate in the treatment of these subjects for the various courses. These studies were necessary in preparing certain pupils for college; therefore the same standards were established for all. This well illustrates what has happened to every branch of secondary instruction accepted by the colleges for certification or examination. The feeling has been that certain pupils might need these subjects for entrance to college, and that therefore they must be taught in the manner and amount that the college has approved or prescribed. The curriculum has thus hardened into a system of interchangeable units, each having its well-established method and area measured with sufficient minuteness to afford a sense of relative security—largely theoretical, to be sure—to each school and college official.

From its utter dependence upon the higher institutions this system has been referred to as the “domination of the college,” and it clearly is such, both in what it accepts and in what it rejects.¹ It has become so wholly a part of the present régime that few teachers realize its oppression. Of course principals sometimes take liberties, but these are regarded as consciously irregular and subject to apology. This domination of the college has unquestionably brought many benefits; it has furnished the chief lever in standardization of courses, and secondary education has acquired a unity that in some respects is a precious achievement. No one would wish to go back to the conditions that preceded it. But for the sound development of secondary education in the future the curriculum must be freed from college control. The college should indeed dominate the secondary school, but its domination should be exerted through the teachers. What the secondary school needs is not primarily a curriculum, — least of all a college-made and college-guarded curriculum, — but good teaching. This is not to say that the curriculum be done away with; but that it must be controlled and improved by the schoolmen themselves, — skilled teachers in direct contact with the problems. The present subordination of the teacher to the curriculum must be reversed and the curriculum be subordinated to the teacher, if there is to be real progress. The existing emphasis upon the curriculum with its “points” and “credits” and pages to be “covered,” its arbitrary standards and its logical balance of studies, has gone far to obscure the real meaning of education as a process of choosing and applying those things that

¹ This situation is, of course, not peculiar to Vermont, but is characteristic throughout the United States. It is now being altered, to the great advantage of both school and college.

will secure the strongest and most profitable reaction in a child. The curriculum should not be a screen to sift out all who do not fit its meshes, but a storehouse from which a skilful teacher may select tools wherewith to fashion his material. The important thing is the skill with which the teacher selects and applies the tools; success is due to his insight and technique; failure indicates poor judgment on his part much oftener than poor stuff in the pupil.¹

Most high schools suffer from this rigid, mechanical curriculum wrongly conceived and wrongly used because of the influence of the higher institutions. Vermont high schools are no exception. The conditions indicated are illustrated by the practice of the first year. In accordance with the official course of study, nearly every high school asks its first year pupils, 14 or 15 years of age, to divide their time equally between Latin grammar, English,² algebra, and ancient history. Substitutes for Latin occur, but, as noted above, 54 per cent of the freshmen in 1912-13 had been induced to take it. Several principals spoke with pride of the large proportion of first year pupils whom they had enrolled in Latin. Others recommended a single year of Latin as the best possible disposition of time, both as a "mental discipline," and for its effect on English. This attitude is illuminated by the following facts. The class of 1912 sustained a loss of about 50 per cent in its progress through high school. Besides this absolute loss, Latin, as measured by the four classes in 1912-13, sustained a relative loss during the course of 23 per cent.³ Of all graduates in 1912, however, only 18 per cent went to college. This was approximately 9 per cent of the entering class. Only 80 per cent of these offered Latin for college entrance,⁴ and for only a portion of these last was Latin an absolute prerequisite that was continued in college. According, therefore, to the best data available, we have out of every 100 entering students, 53 taking Latin, a subject that only 15 of them will pursue through the high school, that only 7 will use for college entrance, and that perhaps 5 will continue in college to the point where alone in the opinion of many the labor spent upon it is justified. No one may dogmatize on a point where expert opinion differs so widely. The writer, however, is frankly of the belief (1) that only an unusually sympathetic and industrious mind arrives at an appreciation of Latin authors as literature before reading them in college; (2) that the study of the language itself in high school alone is of marked value only when conducted by a teacher informed and trained as the large majority of the sec-

¹ The word "teacher" here is, of course, collective; there is no intention of charging the individual teacher with the failure of the pupil in every case.

² The official course prescribes three periods weekly for English, but this amount is very generally increased to five.

³ Thus, in 1912-13, Latin enrolled, of first year pupils, 54 per cent, of second year pupils, 40 per cent, of juniors, 36 per cent, and of seniors, 31 per cent. This is between different groups, to be sure, and may not be typical. Yet the proportion of all pupils taking Latin has grown steadily smaller. In 1908, 49.9 per cent; 1910, 42.6 per cent; 1912, 41.6 per cent of the pupils in all courses given in the school reports for these years took Latin. This relative loss is partially corroborated by highly reliable data from one of the largest high schools in the state where, in 1911-12, 40.4 per cent of the entering class in Latin dropped the subject at the end of the year, and 41.6 per cent of the sophomore class in Latin, at the end of the sophomore year. For the five years previous to 1912-13 these percentages are 41.7 per cent and 41.9 per cent respectively.

⁴ Based on reports from the ten large schools which replied on this point.

ondary school teachers in America are not; (3) that much of the value attributed by Latin teachers to the study of the language in high school alone is unreal, and that they confuse the results of their own years of study and assimilation for what must of necessity be to the student the meagre returns of the initial stages; and (4) that, given a staff of teachers of average information and training, but of relatively high potential, as most American teachers are, a more stimulating and essentially more valuable reaction can be secured by them in English, history, or scientific subjects than in Latin. The inferences from these premises would be that no pupil should be entered in a four-year Latin course without considerable deliberation and weighing of probabilities, and that no group of pupils should be forced through an uncongenial and, to many, comparatively useless course, for the sake of the convenience of one or two.

Algebra is required of practically all first year students. As taught at present it is thoroughly abstract, systematic, and decisive. To sensitive, emotional, unsystematic pupils it has no meaning. How much it might have were it differently organized, it is hard to say. There seems good reason to believe that a radical simplification with much concrete application would furnish real enrichment with little ultimate loss. Mathematics as a whole shows the highest percentage of failure of all subjects in Vermont high schools (15.3 per cent in the larger schools), whether because it can be measured with nicety, or because of a tendency to consider it the critical subject of the course, or because it furnishes a more certain psychological basis for the discrimination of ability.

Latin grammar and algebra are plainly more or less technical subjects. They may be interesting, but it would be unfair to expect them to reveal and explain to a youth his human environment, to quicken his insight, or to stimulate his will. These effects must be obtained, if at all, from English and ancient history. English instruction, as conducted at present, consists of grammar, composition, and reading. In grammar the work includes analysis of sentences according to grammatical principles, the study of grammatical and rhetorical expression, and their formal application in composition. In composition much writing is prescribed, extensively corrected by the teacher and revised by the pupil, with the expectation of developing facility with some degree of accuracy in the use of rhetorical forms. In literature recognized classics by Irving, Whittier, Macaulay, Shakespeare, Kingsley, Cooper, and Homer are studied and discussed to arouse an interest in reading. Few teachers were found, however, who felt that these ends were accomplished to any appreciable extent. The instruction in English involves considerable machinery, which is operated with much pains and devotion; it undoubtedly has some good effect. But the longer one watches the operation and observes the results upon different types of pupils, the surer one becomes that the avowed aim and emphasis of the course is wrong. It stands for form for form's sake. Its devices are focused upon technique rather than upon the content that gives the technique significance. We would scarcely teach a lad table manners by arranging between meals an elaborate outfit and making him go through the correct motions,

but neglecting him entirely when he actually eats. Some yield to the treatment and take an interest in the conscious artificiality of the proceeding. Some with considerable literary background and initiative may even be largely helped by it. Less adaptable but sincere pupils who respond vigorously to a genuine stimulus are bored by the artificiality of the practice, and refuse to be imposed upon. Yet all are treated alike, and are marked high or low according to their reaction. There is an occasional teacher who, in spite of the curriculum, makes the most of the English teacher's rare opportunity, and manages to flood the course with interest from all sources. These are teachers indeed, and more could become such if allowed to treat the curriculum as a servant instead of as a master. Less English grammar as medicine and more good English as a medium, much less correction by the way and much more appeal, conviction, and sense of significance, would lead to a very much higher degree of correctness at the end. A course crowded with information valuable for its own sake, drawn from all fields of literature, and accompanied always by abundant oral expression in discussions, applications, and interpretations,—such a course, in charge of the best teacher to be had, would begin to fulfil the real obligation of the school to the pupil, and in such a course every pupil would find his place. As for the classics, it is to be feared that they are defeating the very purpose for which they are used,—“to arouse an interest in reading.” Dissected and discussed perfunctorily according to requirement, they associate themselves chiefly with that process and its sequel,—tests and marks. Moreover, many of them are much further beyond the modern youth's horizon than is generally supposed. No doubt but that on a broad basis of more intimate and immediate interests the way could be paved to an intelligent appreciation of many of them, but their sole use as a reading program, as at present, or even their primary use, seems more likely to ensure a distaste for literature than its appreciation. At least one duty of the English teacher would seem to be to explore with the pupil and to display to him the characteristics of the resources of literary satisfaction that he may reasonably be expected to resort to on leaving school. A healthy taste in this field would bring great reward.

The last recourse available to the youth in search of light on his adventure is ancient history. Over 80 per cent of first year pupils in 1911–12 were coming up for this five times a week. The study consists of a systematic review of the world's history, chiefly political, from early Egypt to 800 A.D., as outlined by the Committee of Seven in 1899. It is presented in various text-books, most of which endeavor to emphasize points recommended by the committee, but which also give a systematic survey in some form, lest the book be ruled deficient in completeness. If given comprehensively, as was evidently contemplated by the committee, and under conditions which prevail in the majority of Vermont high schools, this course can be nothing other than a pedagogical monstrosity. How can a teacher fresh from college, having thirty-five classes per week of instruction in four or five distinct fields, and having usually little formal preparation in ancient history other than a similar course in high

school, expound systematically the life-stories of two great peoples over a period of 2000 years, to a class of boys and girls in whose experience there is usually lacking the faintest foothold for comprehension of the terms or ideas involved? The attempt issues, perforce, in a mere hand-to-mouth text-book performance, in which the teacher is at times fully as much at sea as the pupils. This "hearing" of ancient history at "so many pages a day" is not only useless; it would be difficult to devise a school matter or manner better calculated to produce weariness and disgust in the pupil. Teachers and principals who were asked, agreed almost unanimously that ancient history "goes badly;" that pupils "find it hard," "uninteresting," or "don't like it." The faithful student leaves the course, or rather the book, with a medley of strange names, the definition of which is governed by chance, and a series of vague and abstract notions of law, government, and society, which suggest or contrast clearly with nothing modern; not to speak of numerous dates and epochs learned for examination and promptly forgotten. At the period of visitation the classes were dealing with the year 69 A.D., and on at least three occasions the details regarding Galba, Otho, and Vitellius were rehearsed as faithfully as though Julius Caesar had been under discussion. In three other classes a different atmosphere prevailed. Breaking away from the text-book, the teachers here were reproducing certain picturesque and significant personages and making them throb with life to a class that was absorbed in interest. Only thus has this difficult course value as education. It requires teachers with time, training, and imagination, to be sure, but it requires also a vision on their part that a response from each pupil is their great object and not the satisfaction of a threatening curriculum.

The foregoing criticisms of the first year course as a whole are not to be taken as sweeping denunciation. The considerations urged are, however, believed to be a valid basis for the conclusion that far greater attention is at present centred upon carrying out courses as prescribed, and upon ordering work within courses as planned, than is spent upon securing for a given child a course that is what he needs and adapting its material to his interest and to the conditions of his assimilation.

A further illustration of the effect of the curriculum and its use is found in the statistics of 63 high schools with regard to student failures in the year 1911-12. The chances of failing in a subject that year ranged from none in four schools to nearly one chance in four in another school, the percentage of failure going as high as 23.6 with the median at 8.8. It is unlikely that this was due to any considerable extent to differences in the children in these various localities. It represents rather the widely varying tension in the curriculum, acting without correlation with differences of preparation in the pupils. In city practice social policy forces a certain uniformity, and the real question is evaded by an arbitrary "passing" of perhaps 90 per cent of each class, a practice morally questionable alike for teacher and pupil. This is not the case in these smaller country schools. They appear to show the honest variation inherent in our present educational standards. The problem is, of course, a difficult one,

— one that the development of improved standards of measurement alone can solve. From another point of view, however, the problem of failure in school is in urgent need of immediate and radical treatment, the nature of which is clear. In a school system that had for its central purpose the appropriate educational treatment of each child on the plane of his capacities and disposition, the problem of how many pupils a teacher was justified in failing would scarcely appear at all. To-day the blight that we call "failure" is allowed to gather and harden into a persistent mental attitude, as a pupil, with the sanction of his school, repeats algebra or Latin grammar from one to five times. This is certainly a mistake, and it is to be hoped that, as the future brings us more resources, we shall learn to discern the beginnings of failure as an order for a change of treatment; and that we shall possess the facilities and the wisdom to make that change with confidence and success and at once.

The first and fundamental need, therefore, is greater freedom and elasticity in order to meet the individual pupil. This established, there is pressing need that the curriculum be expanded to meet the enlarged function of the present-day school. Planned originally for but a single type of pupil, and at a time when the aim of secondary education had by no means attained its present scope, its resources to-day appear meagre and insufficient. At a time in a child's life when he is most stimulated and permanently influenced by the reality of his surroundings, Vermont offers him through the all-important first two years in high school a treatment that is exclusively bookish and can be nothing else; a half course in botany is the sole exception. A state whose economic and social problems are bound up with agriculture, Vermont has a high school curriculum that is appropriate to a metropolis. Less than ten per cent of the pupils in Vermont high schools go to college, but the studies that the colleges require of them crowd out from the curriculum all forms of instruction, aside from commercial branches, that might make the other nine-tenths of the students happier and more efficient in their future occupations, whether they be farming or business, teaching or home-making. Praise is due to the state department of education that changes in these respects have long been preached and, in places, already initiated in Vermont.

Of these newer subjects commercial education is the oldest and best understood. In 1911-12, 16.9 per cent of the enrolment were in commercial courses,—an increase of three per cent over 1909-10. These were chiefly in schools giving a four-year commercial course, of which in 1913 there were 15 large schools and four three-teacher schools. Although this course seems to have been invented to catch the waste of other departments and to have received scant honor in its own right,¹ there is now a strong tendency to strengthen and dignify it, to build out the two-year into four-year courses, to increase the emphasis on economics, scientific salesmanship, and business organization, and to make the course in every way the peer of any other. It is the repeated experience of principals that boys and girls well launched into this work

¹ It exists to-day in several schools as the "easy" course, where the community makes no demand for its product and where it is pursued solely in order to "graduate."

speedily drop the characteristic aimlessness of the high school and become seriously enthusiastic,—such is the transforming effect of a concrete, intelligible objective. Domestic science, agriculture, and manual training have made their way into some of the larger schools. In 1913 domestic science enrolled 4 per cent of the total number of pupils, agriculture, 2 per cent, and manual training, 1 per cent. Two or three of the largest schools are admirably equipped for domestic science and manual training, with competent, trained instructors and adequate apparatus. The appearance of these courses elsewhere demands a word of caution. Nowhere is there greater need of a sympathetic but clear-headed state inspector and adviser. An enthusiastic and ambitious school principal, a slow-moving and skeptical school committee, and a very little money are the usual factors. All concerned are anxious to get the proposed enrichment listed in the catalogue; not all are so particular that its fulfillment be of a nature that is educationally sound or that ensures success. Hence it happens, as one visit showed, that “domestic science” may resolve itself into a joint effort of the history or English teacher and the class in “Home Economics” to cook after school over a single gas-burner in a recitation room; or a willing ninth-grade instructor teaches “manual training” to restless boys gathered about the janitor’s work bench in a dark cellar. Agriculture appears to make less insistent demand for a laboratory. As a result, every course in “agriculture” but one is being taught directly out of some book, by a teacher whose chief qualification is that he or she was “brought up on a farm,” and occasionally even that qualification is missing.¹ It is granted that all of these efforts have elements of worth, and the interest and enterprise of the teachers who are spending themselves at such a disadvantage are wholly commendable. It need hardly be said, however, that the actual work done in such cases can be only meagre and superficial, and that the project ought in every instance to receive more time, study, and preparation before it is launched. School committees should be illuminated by observing such work at its best elsewhere. The education of committees in this way has already produced unexpected results in Vermont. With intelligent support, new departures can be organized in a manner calculated to vindicate their worth to both pupils and parents.

To meet a special need, training-classes for teachers in elementary schools have recently been introduced into the high schools under the close supervision of the state superintendent of education. In their relation to the training of teachers these classes are fully dealt with elsewhere. From the high school point of view these classes constitute an admirable vocational course for girls. The training teachers have generally been selected with great success—skilled women, who are usually the best paid and not seldom the strongest teachers in their respective schools. As they exist to-day, however, probably because of their recent introduction, the training-classes have one marked weakness, namely, their extremely loose articulation with the school where

¹ Of the ten teachers professing to teach agriculture in Vermont high schools, outside of Morrisville, one only reports a course of training in the subject; this one had six weeks in the University of Vermont summer school.

they happen to be. Juniors entering the training-class break off completely the courses they have undertaken before. A separate room, a separate teacher, and a wholly specialized subject-matter perfect the isolation in which they work. This seems both unnecessary and unwise. The distribution of the work of these students on a two-year or three-year basis would permit them to complete certain studies with the rest of the school, and would coördinate their specialty with the other courses of the school. This would tend to their benefit as teachers, and it would certainly contribute much to the unity of the school itself.

The teaching of agriculture is of such surpassing importance to the welfare of Vermont that a defense of it is unnecessary. It may be in place, however, to indicate why such instruction should be shared by the high school rather than be given solely by special schools organized for the purpose. Three reasons are important: first, vocational training from its very nature is local in its demand and, when well worked out in special schools, is exceedingly expensive. A rural population must wait long for an adequate supply of such schools; its high schools, however, can, with comparative economy and success, inaugurate at once such courses as shall serve large districts fairly well. Secondly, because the really efficient high school is the place where, with skilled help and advice, each boy or girl may try out, in a varied and stimulating environment, his or her own personal disposition and resources, and discover, if possible, where his grip on the world is surest and most likely to be permanent. In the special school a pupil has only one outlook; in the high school having several associated courses the meaning of many professions appears from all sides, and the pupil may discover new interests and change his plans, if need be, without difficulty. The third reason is that, if agriculture is to command the best brains of Vermont youth, agricultural study must win for itself recognition as the equal of any other form of school pursuit. This it can do most successfully in direct association with other courses. Trained apart and in rural isolation, the "Aggies" will long suffer from a false but deeply rooted disparagement. On the other hand, if they are matched directly with students in other courses, the opportunity presents itself for schoolmen who have Vermont's problem at heart, to intensify and dignify agriculture to the point of wholly transforming the attitude of all secondary students toward it. It is a pressing duty of the high schools in Vermont to display fairly the power, resources, and significance of the farm. If these are genuine, they can and must be shown to be so; if they are fictitious, and if the end sought must be attained by segregation and withdrawing boys from other opportunities, then no needs of the state, whether fancied or real, can justify the policy.

Finally, it is worth while to sum up in a word the principle that it is believed should underlie the administration of the high school curriculum. No study or group of studies has any importance for its own sake; its value consists altogether in the extent to which it assists a teacher in bringing a pupil into those relations with his environment that are agreeable, stimulating, and promising for him personally and profitable to society. The curriculum should include any body of instruction that

can be successfully organized to this end and for which there is a demand. But its real potency consists not in itself, but in the intelligence with which it is applied.

B. FINANCIAL ASPECTS

Second only to the primary question of the effectiveness of the curriculum in accomplishing that for which it exists, is the question of its cost, of the wisest use of public funds for education. It is desirable that the public school not only be complete and effective and a source of community pride, but also that it represent a wise expenditure of the people's money. If one school spends \$40 per pupil for a course in physics when another spends \$10, the higher cost should be justified by the difficulty of the conditions or the superiority of the instruction. If through a series of years the cost of giving a certain subject remains high in comparison with other subjects that might be introduced, or with other uses to which the money might be put, the public has the right to expect that its school experts will compare as justly as possible the relative values obtainable and seek and secure the largest return on its investment, that is, the best education for the largest number of pupils.¹

Examples of high costs per pupil which may or may not be justified occur particularly in the case of subjects that are given for the sake of the few who desire to prepare for special courses in college. Thus, advanced algebra, or solid geometry, or both, were given in Vermont in 1912-13 by seventeen school principals at the costs per pupil indicated below :

COST PER PUPIL OF ONE HOUR PER WEEK THROUGH THE YEAR IN ADVANCED MATHEMATICS²

<i>Cost</i>	<i>Salary</i>	<i>No. of periods per week</i>	<i>No. of pupils in class</i>
\$1.82	\$850	39	12
2.85	950	37	9
3.62	850	47	5
3.85	1200	39	8
3.85	2000	20 ³	26
4.27	1000	39	6
4.50	1100	35	7
5.71	1000	35	5
9.52	1600	28	6
10.00	1250	25	5
10.16	1300	32	4
10.71	1500	20	7
11.11	1200	27	4
18.24	1750	32	3
20.00	1400	35	2
22.97	850	37	1
36.36	1600	22	2

¹ For a particularly lucid treatment of cost per pupil of secondary instruction see the School Reports of Newton, Massachusetts, for 1910, 1911, and 1912.

² These costs are obtained by dividing the salary by the number of recitation periods per week and then dividing the result by the number in the class. The above are principals in each case.

³ Increased arbitrarily from 16 to 20 in order to make the resulting costs comparable with the others.

Similarly, elementary mathematics is being reviewed for college at one school for \$1.80 per pupil and is being well done; at another school two pupils in this subject are costing \$27.34 each. A third year of French is admirably taught at one school to 23 pupils for \$1.39 each; another school is paying \$16.07 for the advanced French of each of two pupils. It costs still another school \$30.43 to give a single pupil a third year of German. Second year French costs 88 cents per pupil at one of the larger schools, but two of the smaller institutions are paying \$17.10 and \$21.21 respectively to teach it to one pupil. In Greek, as might be expected, the costs per pupil are uniformly very high, from \$4.40 to \$18.28. In most cases they exceed, usually very far, the average cost per pupil of all other subjects taken together. Furthermore, a sequence of courses, which is the chief excuse for high costs, is largely lacking in the case of Greek. One school only has the three consecutive classes, two have two classes, and five have merely scattering groups in this subject.

These comparative costs are not necessarily measures of value; a subject is not good merely because it is either cheap or dear. They do, however, represent the value that a school, perhaps unconsciously, attributes to each subject. In paying \$90¹ a year to teach one pupil Greek, a school should not ignore the fact that the same amount of money may give a course occupying the same amount of an equally skilled teacher's time to twenty pupils in French or English. It is conceivable of course that money spent in training a few good minds to be leaders may accomplish more for the community than if distributed among the larger number who will be followers. The problem is to be sure which pupils are the prospective leaders and which are the followers, that the appropriate subjects are provided for each, and that the return is genuine and not merely traditional or fictitious. If it should appear that courses which make a larger appeal to the community life could, by intensification and enrichment, be given a cultural value as well, it is obvious that money would be better spent in reaching the larger number of pupils.

The comparison of costs per pupil throws light also upon the central problem of Vermont's secondary schools, the small high school. These schools have often been developed and cherished rather because of worthy sentiment and ambition than because of any conviction of their actual success and worth. These small two-teacher schools have, on the whole, poor housing and equipment, the instructors are ill-prepared and of small experience, the salaries are exceedingly small, the number of recitation periods per week excessive, the change of personnel is very rapid, and the educational foundation of the pupil is relatively low. All of these elements make directly for weakness in the process and the product; in fact, the only element of advantage in these small schools is the often doubtful one of the very small class.² Yet in spite of this combination of factors which practically ensures low-grade and inefficient work,

¹ At the rate of \$18 per period, five weekly recitations would cost \$90.

² In the larger schools 10 per cent of the classes consist of five pupils or less; in the two-teacher schools these small classes are 31 per cent of the whole. In the larger schools 74 per cent of the classes have more than ten pupils; in the smaller 71 per cent have less than ten. See table in Part III.

the cost per pupil is as high or higher than it is in the schools where the best conditions prevail. Brief tables are presented in Part III comparing the large schools and the two-teacher schools in these two respects. On the present basis of organization the small schools are paying, and must pay, double the normal cost for a service that is far below the normal value. Only the larger schools can teach some subjects economically. Suggestions for a reorganization in this respect appear in a subsequent section.

III. THE PRODUCT OF THE SECONDARY SCHOOL

The nature of the product is plainly the all-important consideration in an undertaking involving as much effort and expense as does a state's educational establishment.

1. SCHOOL RECORDS

Any enquiry into the product of an educational institution depends upon accurate records. In general these have not existed in Vermont hitherto, although many schools have recently installed an individual card system for recording the gross facts. Some schools have long had such record systems in operation; others are unable to state the number of pupils entering or graduating as recently as 1910-11. One of the large schools in the state has operated up to the present year with a single list of accessions like a hotel register without dates. Ratings were entered after each name, but without mention of subjects; these were left to the principal's memory. Owing to this lack of records and to the fact that where records do exist, they are rarely, if ever, suited to this purpose, the schools were asked only for a few salient facts that could usually be supplied. One great service of a centralized state education office would be to devise and require of the schools a system of records which would make significant facts available. Even where schools possess elaborate systems, it is to be feared that they exist largely in the interests of convenience or of self-protection. Little progress in profitable self-analysis can be made until schools realize that the primary function of school records is to show in detail how the school processes act upon the pupils and how the results justify or condemn the processes.

2. THE UNFINISHED PRODUCT

Information was sought on three points: the withdrawals from the schools in a given year, the withdrawals from a given class during its four years' course, and the present occupations of a given set of graduates. The following table summarizes the returns by groups of schools:

WITHDRAWALS DURING AND AT THE END OF THE SCHOOL YEAR 1911-12

NOT INCLUDING GRADUATES

1st Year in 71 Schools

	<i>Schools having 4-22 teachers</i>	<i>Schools having 3 teachers</i>	<i>Schools having 2 teachers</i>	<i>Schools having 1 teacher</i>	<i>Total</i>
Enrolled	1175	359	212	149	1895
Loss	269	96	54	52	471
Per cent	22.9	26.7	25.4	34.9	24.9

2d, 3d, and 4th Years in 64 Schools

Enrolled	2341	583	380	97	3401
Loss	296	82	63	13	454
Per cent	12.6	14.1	16.5	13.3	13.3

Total in 64 Schools

Enrolled	3516	910	573	187	5186
Loss	565	166	114	31	876
Per cent	16.1	18.2	19.8	16.5	16.9

WITHDRAWALS FROM THE CLASS OF 1912 DURING ITS FOUR-YEAR COURSE IN 40 SCHOOLS

Entered	951	181	116	1248
Loss	497	94	58	649
Per cent	52.3	51.9	50	52

No similar, comprehensive statistics with which to compare these figures are at hand; they are probably not abnormal, if by normal is meant the prevalent situation in secondary schools. The pertinent enquiry is, however, Why does so great a loss occur? The schools were invited to answer this question, with the following result:

CAUSES ASSIGNED BY THE 23 LARGEST SCHOOLS FOR WITHDRAWALS
DURING OR AT THE END OF THE SCHOOL YEAR 1911-12*(The figures indicate percentages)*

	<i>1st Year</i>	<i>2d, 3d, 4th Years</i>	<i>Total</i>
Failure ¹	42.0	35.8	38.8
Financial Necessity	11.5	14.2	13.0
Sickness	8.5	10.1	9.4
Transferred	16.0	19.0	17.6
Other causes	6.7	9.1	7.7
Unknown	15.3	11.8	13.5
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

¹ Includes all whose work was unsatisfactory. Cases under other headings are understood to have been above "passing." The principals determined the meaning of "failure."

CAUSES ASSIGNED FOR WITHDRAWALS DURING THE FOUR-YEAR COURSE
OF THE CLASS OF 1912

	<i>Schools having 4-22 teachers</i>	<i>Schools having 3 teachers</i>	<i>Schools having 2 teachers</i>
Failure	44.0	25.5	22.9
Financial Necessity	13.8	12.8	8.3
Sickness	6.2	2.1	6.3
Transferred	11.9	8.5	14.5
Other Causes	6.2	11.7	6.3
Repeating	5.6	7.4	12.5
Unknown	12.3	32.0	29.2
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Statistics of the nature of those just given must of necessity be somewhat ambiguous and suggest sundry further enquiries, such as—Was withdrawal, actual or prospective, the cause, the result, or the purpose of failure? How compelling was the “financial necessity”? and How completely did sickness incapacitate the pupil? How many of these would have stayed if vital interest had held them? and How many of those transferred finally completed their courses elsewhere? The large number of “unknown” causes still further confuses the results. Whatever the interpretation, however, and with all allowances, it is clear that the first year class even in the largest schools loses nearly a fifth of its membership, and that of these departing pupils over one-half do not meet the requirements of the curriculum.¹

Traced through the course of a single class, 1912, the loss is found to be somewhat over half of the number entering, or assuming that half of those “transferred” ultimately graduate, 49 per cent of those entering do not complete the course of the larger schools. Of these 47 per cent failed to satisfy the school’s requirements.² Approximately one-quarter of the original members of the class of 1912 have, therefore, failed to find in the course that which appealed either to their dispositions or abilities.

On the theory that secondary education is for such as are able and willing to carry out an arbitrarily arranged program of study, this makes on the whole an excellent showing,—77 per cent of a given group appear to be able to meet the requirements,³ although only slightly more than 50 per cent actually do so.

If, on the other hand, it be held that the business of a secondary school is not to fit children to a curriculum, but to select and use such means as shall raise each child to his highest power, it is clear that the high schools lost their hold on half of the pupils entrusted to them, and failed utterly to arouse the interest and response

¹ The transfer factor quoted for the larger schools on page 93 is 16 per cent of 22.9, or 3.6. Actual loss, therefore, equals 19.3 per cent in the group of large schools. The failure factor (42.7 per cent of 22.9) is 9.9, or 51.6 per cent of 19.2. In the complete array the losses range from 8 per cent to 69 per cent, with the median at 25 per cent.

² One-half the transfer factor (11.9 per cent of 52.3) equals 3. The actual loss is then 49.3 per cent. The failure factor (44.1 per cent of 52.3) is 23.1, or 46.9 per cent of 49.3. In the complete array the losses in the class of 1912 range from none to 86 per cent; the median is 55.1 per cent.

³ That is, 100 per cent less 23, or the percentage of failure. See note 2.

of nearly one-fourth, to say nothing of the large number that they failed to attract even to the point of entrance.

3. THE FINISHED PRODUCT

The finishing of the product of the secondary school, therefore, involves a considerable waste, one-half of the original material being discarded in the process. What of the quality and usefulness of the remaining highly selected output? Unfortunately there exist no adequate data for an answer to this question. It would require alumni records covering a number of years, together with accurate records of actual school work, to show what relation there may be between schooling and subsequent careers, and such records are not to be had. Fairly accurate returns, however, were secured concerning the graduates of the class of 1912, and are presented here for what they are worth.

OCCUPATIONS ONE YEAR LATER OF THOSE GRADUATING FROM HIGH SCHOOLS IN 1912

(After the first line the figures indicate percentages)

	<i>Schools with 4-22 teachers</i>	<i>Schools with 3 teachers</i>	<i>Schools with 2 teachers</i>	<i>Schools with 1 teacher</i>	<i>Total</i>
NUMBER OF GRADUATES	599	143	97	51 ¹	890
In college	19.0	19.5	10.3		17.1
In normal school	2.7	7.0	2.1	9.8	3.7
In other schools	11.0	16.8	4.1	25.4	12.0
Teaching in elementary schools	21.2	22.4	35.0	25.4	23.1
Office and clerical work	15.7	8.4	11.3		13.2
Business	5.4	3.5	4.1	2.0	4.7
Trades	2.3	2.8	2.1	4.0	2.5
Farm	3.3	4.2	8.3	2.0	3.9
Other occupations	12.7	10.5	18.6	6.0	12.6
Unknown	6.7	4.9	4.1	25.4	7.2
	100.0	100.0	100.0	100.0	100.0

As an indication of the effectiveness of high school graduates, the above figures are, of course, merely a suggestion. The number said to be in college, for example, probably omits some who will later go to college, and includes many who will fail to continue and complete the college course. The only school furnishing returns on this latter point states that 38 per cent of its graduates during the past five years have entered college, and of these 76 per cent have dropped out before graduation. It is significant to note the small percentage that have thus far taken up farming (3.9). Has the high school actually diverted boys from this occupation, or has it simply failed to attract would-be farmers by the obvious inappropriateness of its courses? An attempt was made to secure a statement of the courses from which these students

¹ As these are all two-year schools, "graduates" are those who leave in good standing at the end of the second year.

graduated, but the replies were so ambiguous that they could not be used. It may be assumed that the Latin course, claiming over 40 per cent of the enrolment, is represented chiefly by those who go to college or other schools, or are teaching in the elementary school. It has a really functional concern only for a part of those who go to college. The commercial course with its 16.9 per cent of the pupils is accounted for in the 15.7 per cent of the graduates of the large schools who are in office work. The English course has presumably produced most of the rest. It cannot be said that any of the various occupations, with the exception of certain forms of college study, the commercial occupations, and, latterly, teaching, have found in the high school any directly preparatory activities. A sort of unrelated "general culture," in so far as that would, if necessary, count toward college, has been its main contribution.

No one can compare the census list of Vermont occupations with the official secondary school curriculum without seeing plainly that occupation and schooling in the state are, with the one exception of commercial subjects, essentially independent and unrelated. The student breaks from a wholly artificial into a wholly practical life. For the sake of their liberal culture he has learned unfamiliar things which he rarely touches again. The cultural features of the things with which he must deal all his life have never been pointed out to him. Where there is a chance for a vital interrelation of reference and illustration—a curriculum and career each drawing helpful knowledge and power from the other—there actually exist the alien interests and rigid exclusiveness of two almost hostile camps. This relation should be completely transformed.

IV. DEFINITION OF A SECONDARY SCHOOL

The authors of this report believe that the secondary school should be emphatically the school for youth during adolescence. Its fundamental purpose is to deal profitably with a certain stage in the development of the individual. It can never, therefore, be the institution merely of a class or sect or community; it is the educational birthright of every youth when he comes to adolescence. The intellectual aim of the elementary school is to ensure confidence and facility in the use of certain indispensable tools; the secondary school, on the other hand, takes the child just as he begins to expand with new power and freedom into the inheritance of the adult, and seeks to discover the direction of his individual and social promise and ultimate productiveness, and to provide him, as far as possible, with equipment and training to that end. Every individual is under a social obligation to develop a vocational pursuit which, while representing his economic contribution to the common life, shall, if possible, be also the medium of his individual expression. This vocational pursuit should spring naturally and with vigorous motive from the soil prepared in the secondary school. Such a pursuit should be both profitable to society and satisfactory to the pupil; and

should be conceived in the largest terms of which the pupil's personality is capable. So-called "liberal" culture has warrant and significance chiefly as it forms the background and interpretation of that which one calls his "work," and therefore in a large way radiates from it.

In conformity with this idea, it is clear that the secondary school should be organized so as to deal with every normal child; that it should provide widely varied opportunities for determining the central tendency of a child's abilities and disposition; that its courses should include, not incidentally but treated with intensive thoroughness, those fields in which the youth of the community are likely to find their permanent careers; and finally that in the arrangement of curriculum and program, in the ordering of general school activities, in the training and spirit of the teaching staff, the central purpose should be to establish the child in the noblest mental and spiritual relations with life.

In urging the necessity of an "enriched" high school it is especially desired to avoid misunderstanding. It is not intended that the schooling of the individual shall be widely and thinly expanded. Precisely the reverse; concentration is indispensable; but a wide opportunity for selection alone gives opportunity for a fair and effective concentration. Concentration of the curriculum without the inner concentration of the pupil means nothing; and this will never be secured without first establishing sympathetic relations between the pupil and his work.

V. A SUGGESTED SOLUTION OF VERMONT'S HIGH SCHOOL PROBLEM

It requires no long survey to discover that the problem of secondary education in Vermont has the rural situation as its central factor. A large number of small towns and villages serve as centres for a widely scattered farming population. Comparative isolation, owing to tardy growth of means of communication, has preserved and fostered a spirit of local patriotism and independence. In many of these centres an admirable impulse has created and clung with tenacity to the only known means to higher education, a public high school or academy. To propose their radical modification is allowable only where it is obvious that these communities are not securing the educational opportunities that they so earnestly desire and think that they are getting. Education in the world without is so rapidly and so fundamentally changing its aims and methods that the cherished institutions of these smaller towns are now, and in their present form must always be, hopelessly in arrears. With the improvement of transportation, however, the community spirit grows more comprehensive, and combines with that of other communities into a larger whole. What one town cannot adequately do for itself, several towns can accomplish together.

The one-teacher schools in Group IV, remote though many of them are and operating under heavy handicap, should by all means be preserved and strengthened.

Although only a two-year school, each is a focus for better living and higher ideals and should steadily gather in more of the surrounding youth under its influence. The disadvantages of its unsuitable curriculum and wasteful form of organization may be remedied as indicated below, and the school be turned into a live, economical, and profitable servant of the community.

Of the next two groups, the two-teacher and three-teacher schools, not so much can be said. All of them are aiming at a goal that is beyond them, and should be frankly disavowed. This is particularly true of the two-teacher schools—little, straining, distorted institutions, excessively expensive and excessively wasteful in proportion to their service. Certainly in their present form there is no point of view from which they can be justified, in spite of the many and capable men and women of unconquerable native talent who have come through them. The tables in Part III set forth more clearly than any words can the conditions under which these schools must operate. The salaries of the teachers are so low that no college man or woman can afford to take them except as an unlucky last chance. This situation is redeemed only through notable exceptions, due usually to special circumstances, such as home connections in the village; one of the ablest teachers observed in the state was, on this account, at work in an otherwise wholly inefficient school. Save in rare cases, the burden of subject and of class changes is so great as absolutely to preclude effective instruction. This, combined with a characteristic widespread lack of experience on the part of both principal and assistant, and an exceedingly abstract curriculum, presents a situation requiring monumental endurance from even a determined pupil, to say nothing of the wavering pupil whom education seeks more and more to reach and hold. The two-teacher type of school is thus an actual discouragement to education.

In addition it is expensive. In the discussion of the financial aspects of the curriculum it was apparent that the cost per pupil of the two-teacher schools is high, and would be enormous if the salaries were equalized. This is due, of course, to the small classes of from one to five pupils which, in the upper years, a small school makes necessary. When a teacher who can teach a class of twenty as successfully as a class of two is employed on the class of two, her performance is clearly but one-tenth of what it might be. When, in addition, the teaching even of the two is not good, a town is paying a doubly extravagant price for what it gets.

If it is proposed to improve such a school in its present form, much more money must be put into it for salaries and equipment, even if it be limited to a special course, such as the commercial course. This is a luxury that probably few towns will allow themselves. It is, moreover, a policy that is economically indefensible, except where no other resource is available. On the other hand, it is easily possible to restrict and intensify these schools with every prospect of success. It is clear from the tables that have been referred to that the financial waste is largely in the upper years, where classes are thinned by failure or economic necessity, and the courses are highly specialized. Just as the university or college finds its later courses its heaviest

burden, and equipment for them, under modern methods, an almost limitless expense, so the secondary school, if it does standard work, finds that heavy laboratory and equipment charges, small classes, and costly instruction are especially characteristic of the third and fourth years. Just as many colleges are relegating such work to the universities, and the elementary schools are centralizing it in the union schools, so it is the duty of the two-teacher high school similarly to abandon this double load of expense and obvious shortcoming and relinquish its last two years to central high schools designed not for any one town or a city, but for the needs of an entire region or district. The support of such a central school would devolve pro rata on all towns that contribute to its patronage, and it should have liberal assistance from the state. There would develop thus a strong, well-equipped high school, organized in its lower years for the needs of its immediate locality, and in its two upper years presenting a rich, highly differentiated curriculum fitted to attract and train all the youth of genuine ability of the district, and, because of its numbers, working economically and effectively. The small community would indeed cease, in that case, to have the doubtful glory of possessing a "first-class" high school; but it would have the genuine satisfaction of possessing, along with neighboring towns and on equal terms with them, opportunities for secondary schooling unsurpassed anywhere in the state.

The lower half of the high school thus divided might then proceed to avail itself of one of the finest educational opportunities ever presented. It could make a complete revision of its unsuitable curriculum and its wasteful organization. The first step would be the consolidation of the first two years of high school with the seventh and eighth grades of the elementary school into a compact, closely articulated school unit, to be known, possibly, as a junior or intermediate high school.¹

The considerations favoring the creation of a new school unit of this sort are of unusual weight. In the first place, a course beginning with the seventh grade puts the point of cleavage at about the age of the great natural divide in youth's experience. All who deal with children at this age know that the adolescent is in a different world from that which surrounds a child one or two years younger. The years at this stage should deal with the rush of new impulses and activities in a wholly different manner from that familiar in the "grammar" school. They should be planned expressly for adolescents instead of passing, as now, in a desultory conclusion to the intermediate grades. In the second place, a well-constructed junior high school course would close up the gap, now woefully broad, between the grades and high school.²

¹ This suggestion assumes that the ninth grade is destined to disappear from the elementary school in Vermont as it has done elsewhere, — a movement already well under way.

² Vermont does not know exactly how many pupils it loses at this point. The percentage of grammar school *graduates* who go to high school seems fairly high, and it is always this that is offered one enquiring about the matter. The loss is of course great, as the preliminary statistics show, and is chiefly among the non-graduates of the elementary school, who slip away unnoticed, though they perhaps need some form of high school most of all. Burlington in 1912 sent to high school 56 per cent of her grammar school *graduates*, but only 28 per cent of those who left her elementary schools. At St. Albans in 1912, 80 left the seventh and eighth grades alone by graduation or otherwise; 45 per cent of these entered high school; of the graduates, 55 per cent were admitted.

Taking the child while still of compulsory school age, the aim should be to hold him through full four years. The failure of the present type of high school to do this is not greatly to be wondered at, and need not necessarily cause misgivings. The junior school would be much more sensitive to the causes of such failure, and could treat them with a better chance of success than the present organization. Again, the leaving age in such a school would meet what appears to be a genuine demand. This is shown most strongly, perhaps, in the great elimination at the end of the first and second years of the high school as it is constituted at present. Many other indications show that a form of school would be welcomed which, while an appreciable advance upon the elementary school, would set boys at work at about the age of sixteen.¹ Finally, reference may be made to the physical ease with which the proposal could be carried out. Practically all of the schools that this arrangement would affect are already housed with the elementary grades, and reconstruction would be wholly or largely an internal problem.

Outward reorganization, however, would mean little or nothing without a thoroughgoing revision of the curriculum. Such a revision will require prolonged study of the local field and the coöperation of many individuals. It is possible, nevertheless, to indicate the general lines upon which it might well proceed. Certain central ideas should be clearly defined at the outset. First, the course should represent acquirement and training of recognized value to such pupils as may receive no further education. Moreover, this value must be such as can be appreciated by the average parent, and, to no slight degree, by the pupil himself. Second, the curriculum should be based predominantly upon the environment, and find its points of departure and return in community activities and needs. Third, the course must fit in with the central school through which the avenue to higher education must be kept open. In addition to these fundamental principles of organization there must be freedom and elasticity within individual courses, and a relentless insistence upon the training, personality, and responsibility of the teachers.

All of this would involve some such modifications as the following: The instruction in English should alter its method. Instead of four years of formal grammar and rhetoric, with composition and the reading of certain English and American classics, the course should become essentially informational, with emphasis upon oral and written expression; the constant use of the language on interesting matter, with continual but tactful pruning of glaring faults, should be relied upon, rather than

¹ There is particularly successful foreign experience in support of this. The Realschulen in Germany perform for a restricted class what the junior high school would do for all. They bring a youth to his sixteenth or seventeenth year with opportunity either to stop and begin business or to go on to the three higher years of the Oberrealschulen; furthermore, they fit the small community precisely as here contemplated in the case of the junior highschool. In England the higher elementary schools, especially as organized in the new Central Schools of London, cover the same ground from the 12th to the 16th years. Admitting on competitive examination when the child is eleven years old, they follow free, elastic courses for the better minds who do not enter the secondary schools. These are thoroughly admirable institutions, but their weakness is their failure to articulate with the higher schools as the Realschulen do, and as the proposed junior high schools should most certainly do.

formal analysis and drill. Oral work, now greatly neglected, should probably be given a leading place in themes, arguments, stories, and so on, with the purpose of arousing as strong a mental reaction as possible to topics of lively interest. A minimum of writing should be called for merely for the sake of practice. A rich content that invites or compels expression should be the habitual occasion for it. As for literature in the junior high school, it would seem that few teachers, at present, feel that they are accomplishing their avowed aim, namely, to instill appreciation for good literature. Especially is this true for such pupils as leave high school after one or two years' attendance. These surely have rare recourse to classic writers for pleasure reading, and the school has shown them nothing else. Ought not the school to make it its first duty, without of course ignoring the classics, to open up and illuminate such kinds of literature as the pupil may reasonably be expected to enjoy permanently? A lad leaving school at sixteen thoroughly appreciative of one first-class magazine, might owe much to his education.

Latin should unquestionably disappear, except in such schools as are large enough to offer it as a wisely administered elective. Opportunity may be given in the central school for two years of Latin under superior conditions, where those who go to college and possibly have plans for studying law, medicine, or philology may secure a foundation which the college should recognize and plan to meet. Certainly the junior high school, with its small demand for Latin and its still smaller use for it after graduation, should no longer continue the relatively large expense, not to mention the injustice, that it entails. As a substitute for Latin, schools large enough to afford it should offer a course in French or German, as local considerations may dictate; but this should not be introduced at the expense of work that is fundamental and necessary. If given, it could well cover the entire four years of the school, and those going thence to the central school could secure two additional years, thus winning for their six years' work a real command of the language, both in speech and in writing. The instruction should be by the "direct" method from the outset, and in the third and fourth years the new medium should be applied to content having value in other courses. This subject would make the severest demands on the teacher,—demands that could not at present be fulfilled, but which could certainly be met in time.

Ancient and mediaeval history, as now given, should be dropped from the junior school. They are not only a complete waste of time, but an actual sacrifice of the pupil's natural and healthy interest in human life and institutions. A substitute is easy to propose, but has not as yet been organized in such form as to make its presentation to a class a simple matter. We need a graded course in human institutions, starting always from facts and conditions familiar to the pupil of to-day, and returning always with its revelations from the past in explanation and interpretation of modern life. In the absence of a text-book or outline of this nature, and while waiting for them, the best expedient is doubtless to retain the respective fields about as they are, together with the best of their texts, but to liberate the teacher. Any teacher suffi-

ciently trained to be entrusted with a course in history at all, especially if he has had some work in social science in college, should be able to develop sufficient power at the significant spots in these historical fields really to make them glow for a class. To do so, however, it must be a question solely of himself and the class; not of any exterior "requirements." Formal geography has heretofore been considered the property of the elementary school. There is no reason, apparently, why a kind of social and economic geography should not be carried along with the history and receive there the emphasis that it deserves.

In mathematics the new organization would give opportunity for some important modifications. In the first place, the formal work in arithmetic might well be broken up into concrete project work in connection with the practical arts, and be kept up throughout the course. Civics gives opportunity for study of town and state budgets in graphic fashion; personal expense budgets, estimates for materials, labor, and profit in shop enterprises and in the kitchen furnish endless problems. Even baseball averages, problems in aviation, motoring, or wheeling make the usually dull abstractions take on new significance. Second, it would probably be possible to introduce algebra one full year earlier than at present, if this should prove desirable, either to enable bright pupils to reach college earlier or to make way for something else. Geometry would follow, and both of these should be subjected to a thorough revision in view of the needs of the large number who would not continue in the central school; the practical applications of algebra and geometry have scarcely been touched. On the other hand, the review mathematics as now given in the last year of high school could be trusted to prepare specifically for college.

A new and promising first year course in "general science" has appeared in a few schools and has met with deserved success. It consists of a not wholly disconnected treatment of the most familiar or striking phenomena in several scientific fields, chiefly physics, chemistry, and biology, and deduces its few general principles always after a careful examination or experiment with the object or apparatus,—camera, telephone, battery, and so on. This thoroughly practical course can be made of the utmost value to boys and girls of this period. It should prepare in a way for physics and chemistry in the central school, but its chief concern should be the boy or girl who must leave school at sixteen.

Coming now to the so-called practical arts, attention is invited to those forms of training which, although far from dominating the curriculum in themselves, may be relied upon to give variety and vitality to the program, to balance the excessive bookishness of our past schooling with purposeful motor-training, and to lay open to many subjects whole new fields of application and illustration. It is becoming more and more clear that knowledge is of immensely greater accuracy and permanence when a motor reaction is involved, that is, when the child does the thing; hence the great wisdom, wherever possible, of translating abstractions into their concrete, applied forms; there will remain enough abstractions at best. When, at the same time, these

pursuits have a great practical value for life, their educational value is enhanced. So far from impoverishment, it is believed that the genuine though latent cultural associations of what are sometimes scornfully termed "mere vocational subjects" are wholly unrealized, and are susceptible of enormous development. Courses in constructive woodwork, in domestic science, in elementary agriculture, are, therefore, most warmly to be welcomed and used, not in any petty spirit, but as charged with an abundance of educational significance that no school can afford to miss. It is probable, too, that stenography and typewriting should eventually find a place in a school of this kind, not wholly for their vocational value, but as extremely convenient tools that any one may acquire.

These are the outlines, roughly sketched, of a school form which, if well equipped, should be able to hold throughout its course all normal pupils of suitable age, and to be of decided value to them. They should be admitted directly from all six-grade elementary schools without examination other than those usually given in their classes.¹ It should be the policy of the junior high school to admit freely almost any pupil and do its best by each, but to use considerable discrimination in the pupils that are sent on to the central school. It is clear that a school of this type could not be successfully organized without at least three teachers, and these, too, of a training and ability much above the present level in the small institutions. The curriculum as outlined above may appear at first sight a sort of omnium-gatherum in its variety, requiring a large staff. This is not the case; it will, however, require a reorganization of preparation. Its units are no longer nicely adjusted to college courses, but demand a fundamental training for the purpose. Teachers so trained, and operating with an elastic program, would, it is believed, prove the new curriculum to be more economical than the old. The principal should preferably be a man, one with training in agriculture and the problems of rural life. The ideal teachers would be those especially prepared for this work in the training-school advocated in another section; otherwise college graduates who have had training in teaching should be employed. Although the expectation of the school would be to give such subjects as should keep its classes full throughout the course, certain economies of instruction would be feasible in small communities. Thus, the four classes in English could profitably be taught in two groups, and their material could well be drawn from their history and general science. Arithmetic also, as indicated above, should largely appear in applied forms in other classes. Such arrangements would, of course, require some skill, but would not be difficult.²

Turning once more to the central high school, a few main features may be pointed out. This, in its two higher years, is the school for boys and girls whose abilities have been tested in the junior school, and who know rather definitely what they want to do.

¹ It is here assumed that the changes in the elementary school suggested elsewhere have been made.

² A careful survey with the local superintendents of the school population in seven towns in Lamotte County showed that at least 80 per cent of the school children twelve years of age or over were within reach (three miles) of centres where junior high schools would naturally be organized.

Here, therefore, are concentrated the studies specifically preparing for college. Latin, French, or German could doubtless be taught here throughout the full six-year curriculum with reasonable economy, though special classes would be necessary during the last two years for pupils coming from other junior schools. Parallel with these, and of equal dignity, intensity, and thoroughness, should appear a two years' course in agriculture and another in domestic science. Teacher training for the elementary schools should be organized as a vocational course for girls, and courses in music, in drawing and designing, in wood and metal working should be available. It is, in short, the school that aims to organize and conduct any form of instruction that can be shown to be of value and to be demanded by a considerable number of boys and girls of high school age. It is emphatically a people's school; it aims to affiliate with all other effective educational enterprises, and to coöperate, so far as its equipment permits, with industrial or mercantile establishments in training their employees. It is just as emphatically not a trade school or a vocational school in the sense of being limited to the drilling of pupils in the series of mechanical processes to be found in office, shop, or factory. Many of these it must, of course, include, but its aim is, by means of teachers, themselves cultured and trained for the task, to organize and teach the fundamentals of human activities, to develop and enforce their human significance, to set them in their large and vital relationships; and only those activities which possess such significance and relationships should be included in its curriculum. Articulation with the junior school, just as with the college or technical school, should be complete and without examination.

In its four junior years the central high school may well differ somewhat from the junior high school standing alone. Vermont's narrower vocational problem should find here the beginning of a successful solution. There is a large proportion of adolescent children to whom the more general course already outlined does not appeal, whether for economic or personal reasons affecting themselves or their parents. For these a profitable and satisfactory form of training must be devised. For Vermont the obvious initial step in this direction is a vocational course in agriculture for boys from twelve to sixteen years of age. Those who take the higher course in agriculture in the upper years are likely to turn out as farm managers or teachers of agriculture, frequently going on to the Agricultural College. The junior central school, on the other hand, should aim to produce successful farmers. No effort should be spared to make this course serve the community; its practical value should be its reason for existence. The same laboratories, grounds, and equipment would accommodate both higher and lower classes, and a trained director would be in charge of the entire department. If such courses were organized in all junior central schools, there would be from 15 to 18 centres for instruction in farming, elementary, to be sure, but thorough. This distribution of opportunity would meet the local needs with speed and economy pending the gradual development of special schools having larger facilities. What is true of agriculture applies equally to other forms of vocational training. The ideal

of the junior central school should be, within the limits of its funds, to provide means whereby every child of suitable age may discover his personal resources, however slender they may be, and become accustomed to command them with confidence.

In going to the central school from a distance, many pupils would necessarily be obliged to remain for the week at least,—a practice already common at most of the larger high schools in Vermont. Greatly to increase this practice involves two important considerations, supervision and expense. One reason for dividing the high school as suggested, giving a junior school of four years and an additional central school course of two years, instead of devoting three years to each, is that the new plan postpones home-leaving to the latest possible point,—a consideration of much importance where many are involved. This would not usually take place then before the age of seventeen,—an age of reasonable discretion, when supervision such as a high school staff could exercise would be effective. Experience at such places as Randolph or Fairfax goes to show that even considerable colonies of young people are wholly manageable without dormitories. With such changes as have been suggested the central school would necessarily assume this care as one of its important functions and one not without its educational opportunities; a house for self-boarders, or a general commons for outside pupils, would furnish the domestic science department an unusual field for displaying its efficiency in a thoroughly practical way.¹

A more difficult problem is that of equalizing for all pupils, near and remote, the expense of attending a central school. It cannot be denied that the conversion of fifty-eight small high schools into less than a score of strong and relatively large ones will breed hardship for some. It is probable that this can be met for the time being in but one way—that of personal sacrifice, although it is possible that some future development in public policy may assign this margin of expense to the state. In either case no question can arise from this source as to the wisdom of the proposed plan. The convenience of a few pupils can never warrant the sacrifice of the welfare of the many in maintaining a series of institutions each mediocre in itself and collectively standing in the way of genuine excellence on the part of any. A thoroughly good school is its own excuse for being. A first-class junior high school in full career on sound principles is surely a community asset far superior to an imitation of a four-year institution that limps half-starved to no recognized goal.

The centralized policy will, of course, be more expensive than the present. In spite of its high costs per pupil, the small two-teacher school costs less on the whole; the final objection to it is not its costs, but its inefficiency. The final question must be not, For how small a number can an institution, by courtesy called a “high school,” be run? but, How many boys and girls can we, or are we willing, to bring within reach of opportunities for secondary education that are adequate and satisfactory?

¹ The high school at Brookeville, Maryland, has rooming and boarding accommodations for nearly 20 pupils in its special domestic science building. These come in on Monday and return home on Friday night. See the *Educational Survey of Montgomery County, Maryland*, U. S. Bureau of Education Bulletin, No. 32, page 29.

Such, in its broad outlines, is a scheme of organization which, it is believed, would place Vermont's secondary schools upon a sound educational footing, and would prove as economical financially as is consistent with bona fide results. It is scarcely within the province of the present enquiry to work out the plan in greater detail. Of course no plan of such far-reaching importance should be undertaken except after a careful study, on the part of a competent and disinterested board, of the many local factors which enter in. The selection and development of fifteen or eighteen central high schools is a matter requiring tact, patience, and persistence; and the organization of junior high schools in place of the old four-year institutions, together with the fresh establishment of such schools in promising centres, is a task calling for many years of planning and attentive promotion. The immediate concern is that the policy undertaken be suited to the people and conditions in the state of Vermont, that it be educationally justifiable, and that its realization be financially reasonable.

VI. A SUMMARY OF RECOMMENDATIONS FOR THE IMPROVEMENT OF SECONDARY EDUCATION IN VERMONT

1. A school census to be freshly and thoroughly prepared annually under the supervision of the local superintendent of schools and to include a list of all children from five to eighteen years of age inclusive, together with information as to their nationality, the occupation of their parents, and their previous movements and schooling.

2. A classification of schools based upon the elements of school efficiency, including the extent and condition of grounds, buildings, and equipment; the number, qualifications, hours, and salaries of principals and teachers; the range and quality of the curriculum and program; and the spirit and attitude characteristic of the institution as a whole. The educational authority should establish standards in all these particulars, but fixed rules for a mechanical classification should not be made. The classification should proceed rather from an intelligent appraisal of each institution on its merits, allowance being made for all compensating features.

3. The appointment of a qualified director of secondary education to be the representative of the state commissioner of education and to act as his agent. His duties should be those of an inspector and adviser. As inspector, he should appraise the plant and operation of all secondary institutions, and, with the approval of the commissioner, should determine individual assignments in respect to school classification, state aid, and certificates to secondary teachers. In his advisory capacity he should understand and represent the state's ideal in secondary education; he should hold himself at the disposal of school committees and of all secondary school officials throughout the state for counsel and advice, and when these are not asked, should be capable of exerting persuasive initiative.

4. The incorporation of the secondary schools everywhere as an integral portion of a single, compactly organized school system for each locality, and therefore subject to a common, local, supervising head. In case the organization contemplated in Recommendation 10 is adopted, it would be advisable to make the jurisdiction of the local superintendent coextensive with the regional high school district. That officer should then be the first educational official of the district, and be trained and paid accordingly. Vermont would thus possess, in the place of 57 minor superintendents, an educational council of from 15 to 20 competent experts, exercising their supervision on the business side through local town agents, and on the educational side through one or more supervisors appointed by themselves.

5. A higher standard of supervision. There should be a progressive insistence upon a knowledge on the part of principals of the essential characteristics of efficient supervision, and school committees should be required to release an adequate amount of the principal's time, in proportion to the size of schools, for that purpose.

6. A higher standard of qualification for teachers. Teachers at present employed in the state should, of course, be continued, but the director of secondary education should have the power to make and to enforce the requirement that teachers who are conspicuously deficient in training in those subjects that they are teaching either improve their condition by attendance at summer schools or give up their certificates. The state is not so large that for this purpose it may not best be treated as a city system and each teacher be considered on his individual merits. For subsequent accessions to the teaching staff the requirements should be increased. No certificate should be granted merely for a college diploma; to be of value to the schools, college work must have been properly focused. It is not too early now to demand 12 year-hours of college work in each field offered by a candidate as a major for teaching; that is actually a modest requirement. Six year-hours for a minor with a total requirement of two majors, or of one major and two minors, is certainly not too much to ask. To this must be added in practice, the stipulation that teachers be employed in those subjects in which they are trained.

A further requirement would possibly do more as an example to promote the training of secondary teachers at large than any other one thing. The state should require that a person who is a candidate for a teaching position in schools of the highest class must have had actual practice in teaching of not less than five periods per week for one semester, under the supervision and criticism of a competent instructor, in an approved school or college department of education. It is undoubtedly true, and is generally acknowledged, that when once state regulations supply the backing for this proposal the colleges will meet it with alacrity.

7. Improved conditions of service for teachers. These include reduction in the number of classes and subjects to be taught, increase of capable supervision, and gradual increase in salaries. Together with the provision for the higher qualification of teachers, these modifications are of the first importance in the construction of effective

educational machinery. They will devolve naturally upon the proposed director of secondary education, who should have considerable leverage for their enforcement in his control of the award of grades of school classification and of financial aid. A rise in the general level of ability as secured in prolonged or specialized preparation is inseparably connected with increase in compensation. A wholesale and indiscriminate increase of salaries is not desirable and can easily be avoided in Vermont, where a series of small schools makes the classified salary system of large cities unnecessary; but it is most desirable that as much money as possible be devoted, on a strictly individual basis of personal merit, to inducing trained teachers to come to Vermont, and to retaining such teachers already in the state as are clearly of exceptional ability or promise. Vermont's policy should be to pay well for ability and to see that she gets it. For a town to refuse the deserved increase in salary to retain a notably successful teacher, thereby sacrificing the steady excellence of its schooling, is a common but wholly reprehensible form of inefficient management, and ought not to be tolerated by the state unless the amount of money needed is out of proportion to the grade of school that the community is capable of supporting.

8. An avowed shift of emphasis in education from the curriculum to the child, involving the intimate and continuous study of each individual child to determine what his characteristics and needs are,—his natural latent assets,—and the adaptation of curriculum, organization, and methods of the school to the development of those assets, to the end that the value—personal, social, and economic—of each individual may be increased to the largest possible extent. This end is to be achieved:

a. Through a more varied offering, especially in such subjects as demand an active, concrete, motor response or application, as compared with a solely abstract, passively absorptive, verbal reaction; hence the practical arts, original oral expression and composition, mathematics and modern languages applied to a stimulating content, history as life-story of the familiar present, and so on;

b. Through a more appropriate offering, contributing to the education of each child elements that will illuminate his surroundings and prepare him directly for the life and work that probably await him; hence particularly agriculture in its various forms;

c. Through more elastic courses, allowing to skilled and experienced teachers liberty for such adaptation as their insight shows to be appropriate to the pupils with whom they deal; and

d. Through a serious effort to secure for each school the facilities and responsibility for dealing individually instead of schematically with its pupils.

This recommendation involves a delicate and difficult readjustment. It can be accomplished only through a personnel of considerable professional ability, to prevent degeneration into a pedagogical chaos as injurious as the mechanical tendency of the present rigid system. The unifying factors should be:

(1) Constant and painstaking criticism by the director of secondary education, and

(2) Frequent conferences of the schoolmen themselves to agree upon a generous minimum in their courses as well as to maintain satisfactory personal and professional standards.

9. A persistent and careful scrutiny of the cost of the curriculum as applied in each school, with a view to securing the largest actual returns for the money invested. This means an effort to realize the full pupil-serving power of every teacher, of every piece of apparatus, and of every portion of the plant. It should lead to the abandonment of expensive courses for a few specialized students unless, as is often possible with pupils having initiative, these can be directed informally. Even the continuity of a course involving extravagant expense—for one or two pupils—might well be sacrificed if the teacher's time or salary could be invested elsewhere to greater advantage. A schematic preparation for college and a strong desire for logical consistency have blinded us here to a just sense of actual values.

10. A general reorganization of the secondary schools on the principle of centralization:

(1) The development of, say, 15 to 18 central and readily accessible schools into regional high schools articulating directly with all neighboring junior high schools (see 2), and having:

a. A rich and comprehensive two-year curriculum appropriate to the youth 17 to 19 years of age drawn from the surrounding district;

b. A four-year junior curriculum as in (2), but including special vocational opportunities, particularly in agriculture, for pupils from 12 to 16 years of age.

c. A highly trained and well-paid staff;

d. Adequate equipment for all purposes;

e. Carefully studied provision for housing and supervising pupils who come from a distance; and

f. The disposition and facilities for becoming the centres of the intellectual and social life, both adolescent and adult, of the group of towns that they serve.

(2) The reorganization of the remaining high schools, together with the lower years of the proposed regional high schools, into junior high schools, having:

a. A four-year curriculum, elastic in administration, but limited in scope by the numbers and needs of the local boys and girls 12 to 16 years of age, covering the seventh and eighth grades of the present elementary school and the first two years of the present high school;

b. A staff trained, particularly with reference to the problems of the rural or small community, in a special training-school;

c. Equipment appropriate to the curriculum presented; and

d. The primary function of reaching and securing the greatest possible reaction from every child in the community who is from 12 to 16 years of age.

11. Provision for the collection and interpretation of the most important secondary school statistics: attendance and withdrawal in the various schools, classes, years,

courses, subjects; success and failure in various schools, years, courses, and subjects; sources of pupils as well as their subsequent performance in relation to their school records; and costs per pupil in courses and subjects. It is not a great burden to secure such data when the task is systematized and distributed. Intelligently used, they constitute the only real chart for educational navigation that we possess.

WILLIAM S. LEARNED.

V

THE TRAINING, CERTIFICATION, AND SUPPLY OF TEACHERS

THIS section presents: (1) an historical summary, and (2) a statement of the sources of its information; and discusses (3) the existing situation with regard to (*a*) normal schools, (*b*) training-classes, (*c*) supplementary training, and (*d*) the certification of teachers; (4) the inadequacy of the normal schools; (5) the success of the training-classes; and (6) a central training-school; and concludes with (7) recommendations.

1. HISTORICAL SUMMARY

The training of teachers for the elementary schools received its first official recognition and support in Vermont about half a century ago—in 1849 through appropriations by the legislature for teachers institutes, and in 1866–67 through the constitution of three state normal schools out of three county grammar schools (that of Orange County at Randolph Centre, that of Lamoille County at Johnson, and that of Rutland County at Castleton). The prestige conferred upon these schools by this honor evidently did service in lieu of material support, as the act stipulated that they were to be “established and maintained without any expense to the State.”¹ Aid was shortly forthcoming, however, in the form of annual appropriations for scholarships, to which there was added, in 1868, a small appropriation (\$500) for each school, to be expended by the board of education in direct assistance. In one or the other or both of these two forms the subsidy to these normal schools has been steadily increased until, in 1910, Johnson and Castleton were receiving annually \$10,000 each; the school at Randolph was converted into a state agricultural school in that year. Established for a five-year period, the schools were renewed at that interval until 1880; two ten-year extensions brought them to 1900, when they were continued to 1920. Their early careers were apparently prosperous—sufficiently so to awaken the jealousy of neighboring academies which, in 1878, seem to have been influential enough with the legislature to compel the normal schools to abandon their academic courses and to confine their activities wholly to the training of teachers. This move extinguished what had been flourishing and profitable departments, what had, in fact, been the schools themselves until the state developed the normal feature, and the institutions became henceforth wholly dependent upon the state. The control of the schools was vested in the board of education from the outset, so far at least as concerned admission, courses of study, examinations and certificates, and the appointment of the principal. The trustees of the several original academies were continued when the latter became normal schools, though the board of education had sole control in the expenditure of state

¹ Acts of 1866, No. 1.

funds. When, in 1874, the board of education was abolished, its duties fell to the newly created state superintendent, who acted, however, in consultation with the trustees. In 1894 control reverted to a board known as the Board of Normal School Examiners, Supervisors, and Commissioners, and later (1898) as the Board of Normal School Commissioners. The powers of this latter body were passed on in turn to the board of education, created in 1908, except that the examination and certification of teachers was centred in the state superintendent. The last change occurred in 1912, when the normal schools came under their present management, the new board of education.

The three schools have been much investigated institutions. No less than five special commissions for this purpose have been created since 1886. The last of these, in 1908, never became active. Of the remaining four, the first two (1886, 1894) recommended the abolition of the prevailing system as being inadequate for its purpose; the third (1896) urged the maintenance of the existing schools and their largely increased support; the fourth (1906) advocated the establishment of a new, well-equipped school in a relatively large and accessible town to replace the school at Randolph Centre, but proposed to continue the schools at Castleton and Johnson for the time being with moderate appropriations. Until 1910 the Castleton and Johnson normal schools were conducted on property and in buildings that did not belong to the state. By legislative enactment of that year (Acts 1910, No. 70) the property at Castleton was purchased by the state for the sum of \$18,000. In the same act the legislature appropriated \$12,000 for the construction and equipment of a dormitory for the use of the Johnson Normal School. This appropriation, practically the first for such a purpose, was made upon the conditions that the state have conveyed to it free from all encumbrances a lot of land sufficient for the site of the dormitory, with suitable grounds in connection therewith; that the trustees of Lamoille County Grammar School lease to the state for a term of ninety years the property occupied by the normal school; and that the village of Johnson furnish the buildings connected with the institution with water and electricity free of expense to the state. In spite of these steps looking toward the promotion of the present normal schools, the state in the same year inaugurated a policy of state aid for teachers training-classes in the high schools,—a move that threatens the existence of both normal schools as they are constituted at present. These various changes, many of them divorced from educational considerations, have left the normal schools, their function, and their support in a state of constant confusion. There has been no consistent or permanent policy in dealing with them.

2. SOURCES OF INFORMATION

Both of the normal schools were visited by several members of the staff, who were familiar with similar institutions in other states. Twelve of the fourteen high school training-classes were visited, a number of them by several members of the staff. The

records and literature concerning both groups of institutions were thoroughly studied, and there were many conferences with educators and other citizens concerning them.

3. THE EXISTING SITUATION

(a) *Normal Schools*

The state now maintains and practically owns two normal schools, one at Castleton and one at Johnson.

The Castleton buildings are located near the centre of the village of Castleton, a short distance south of the main street and about fifty feet above the level of the Castleton River. They are surrounded by about seven acres of land; the two and one-half acres in front of the buildings having been parked. The buildings themselves consist of a three story brick structure, one hundred feet long and forty feet wide, together with a wooden annex about sixty feet long and fifty feet wide. One-half of the first floor of the main building and all of the annex are used by the school for recitation rooms, library, and office. The rest of the main building is used as a dormitory for pupils and teachers. As a whole, the buildings at Castleton are poorly arranged and indifferently equipped for the purposes of the school. In spite of recent renovation and improvements, they are considerably out of repair. They are heated by stoves, which are in themselves a constant menace to the lives of the pupils. The last legislature authorized the state board of education, with the approval of the governor, to provide for the furnishing and installation of a steam heating plant for the buildings, and appropriated \$7000 for this purpose. The sum of \$3000 was also appropriated for furniture and repairs for the dormitory. There is serious doubt as to the desirability of expending any more money on these buildings. If this location is to be used for the purposes of any state educational institution, it would be cheaper in the end to build entirely new buildings. By agreement with the town school officers the Castleton public school, located within a ready walking distance of the normal school, is used as a training-school. One of the rural schools of the town is also utilized for this purpose.

The buildings at Johnson consist of a two story frame structure, used for instruction under a long term lease from the trustees of the old Lamoille County Grammar School, and a dormitory,¹ distant about half a mile and adjacent to the village public school, which is used as a practice-school. Without exception the housing, equipment, and general material arrangements at Johnson are superior to those at Castleton.

Whatever the future disposition of the schools may be, their recent purchase by the state has very completely and properly liquidated any obligation that the state may have had toward them. The state is now entirely free to act in accordance with its best interests.

¹ Constructed by the state in accordance with the legislation of 1910.

The organization of the course of study in the normal schools has passed through three well-defined stages. The original plan contemplated a "lower course," to include all "the branches required by law to be taught in the common schools of Vermont," and a "higher course," to contain, in addition, "higher branches," and to require "one full year of study."¹ These courses gradually crystallized into a lower course of two years open to pupils fresh from the elementary school, and a higher course, also of two years, for such as had taken the lower course; the two courses thus corresponding with the two halves of a four-year high school course. Such was the arrangement until 1909, when the higher course had its standard raised by two years and was reserved for high school graduates. To effect the transition to a single-standard school similar to those of neighboring states, the lower course was at the same time lengthened to four years, and was later (1910) abolished. For three years thereafter Vermont normal schools offered, in addition to remnants of the old régime, work of strictly professional grade. Moved, however, by the prospect of diminishing attendance, the present board of education restored the lower course after July, 1913, making it two years in length and dependent upon (*a*) the completion of two years of work in any classified academy or high school in Vermont, or of an equal amount in classified secondary schools of any other state; or (*b*) the possession of any Vermont teacher's certificate except a permit or a limited third grade certificate.

This action of the state board of education provided that pupils satisfactorily completing the requirements of the lower course be granted an appropriate diploma and a five-year certificate; that graduates of high schools or academies of the "first"² class be admitted to the lower course, and upon completion of one year's work be granted similar credentials; and that pupils completing the lower course of two years be admitted to the higher course and its privileges of graduation and certification. The dual course is therefore again in operation: the higher, open to graduates of a four-year high school course and leading to a diploma and a certificate to teach valid for ten years, and the lower as stated above.

The attendance and number of graduates from each of the normal schools for the ten years 1903-12 is summarized below:

<i>Average Number of Graduates Annually from Vermont Normal Schools³</i>			
	<i>Lower Course</i>	<i>Higher Course</i>	<i>Regraduates & Special</i>
Castleton	36 (10)	3 (10)	4 (8)
Johnson	22 (6)	3 (6)	2 (8)
Randolph	29 (6)	2 (6)	1 (6)
<i>Together</i>	<u>87</u>	<u>8⁴</u>	<u>7</u>

¹ Acts of 1866, No. 1.

² For explanation of this term, see page 67.

³ As complete reports are not available, the number of years on which the average is based is given in parentheses.

⁴ In 1911 and 1912 the "higher course" graduates were from the new two-year course for high school graduates, and numbered 11 and 7 at Castleton, 8 and 7 at Johnson, and 4 at Randolph—37 in all.

(b) *Training-classes in High Schools*

The school board of a town maintaining a high school of the first class, and the board of trustees of an academy of the first class, may establish and maintain a teacher-training class in connection with such high school or academy.¹ This class is under the direction and approval of the state board of education, which prescribes the studies to be pursued and appoints the special teachers employed. In the establishment of such classes the law provides that preference shall be given to high schools and academies that can best serve the rural schools. No approval may be given to a high school or academy having less than two elementary graded schools available for observation and practice purposes.

For classes so established the state allows a maximum subsidy of \$800 for the teacher's salary, provided that the local authorities have expended at least \$200 for the same purpose. If the class numbers fewer than eight seniors or graduates, the state pays \$100 for each regular member of the class, and the school must increase its proportion to make up the balance.

The facts concerning training-classes from 1912 to 1914 are summarized in the following table:²

<i>In Courses</i>	<i>1911-12</i>	<i>1912-13</i>	<i>1913-14</i>
Graduates	43	48	65
Seniors	106	91	133 ³
<i>Total</i>	<u>149</u>	<u>139</u>	<u>198</u>
Graduated	141	139	
Teaching			
In Graded Schools	15	5	
In Rural Schools	111	118	
<i>Total</i>	<u>126</u>	<u>123</u>	
Not Teaching	15	16	

(c) *Supplementary Training*

The superintendent of education reports twenty-one educational meetings for public school teachers conducted by his department during the biennium 1910-12.⁴ In addition to these general meetings each union superintendent conducted several meetings of the teachers of his union. Summer schools for elementary school teachers were held at Rutland and Johnson in 1911, and at Castleton and Johnson in 1912 and 1913. Middlebury College and the University of Vermont provide through their summer sessions opportunities for further professional training for secondary school teachers. The Vermont Teachers' Association in its annual sessions has for many years been a stimulating and unifying influence among teachers of all degrees.

¹ By the provisions of Act No. 61, Acts of 1910 (as amended by No. 64, Acts of 1912).

² The figures are furnished by the superintendent of education.

³ Nine of these are "special" students.

⁴ *School Report*, 1912, page 53.

(d) *The Certification of Teachers*

The legal requirements for the certification of teachers and the statistics relating to the grades of certificates held by the teaching staff of the state have already been presented.¹

Without question, a distinct step in advance was made in placing the examination and certification of all public school teachers entirely under the direction of the superintendent of education.² This change from a county examiner system to a state system has been widely recognized in recent years as the most effective means for raising and unifying the worth of teachers' certificates. As now conducted, a committee of union superintendents prepares the examination questions; the questions are printed and distributed through the department of education; the union superintendents conduct the examinations and forward to the superintendent of education the papers written by the various applicants; the papers are assigned to readers for rating, each reader having a single subject; the ratings are sent to the office of the superintendent of education, and upon the averages obtained certificates are issued. The advantages of this method over the former county examiner method, as pointed out by the superintendent of education, are that (a) it is cheaper; (b) it furnishes a single standard of rating for each subject; and (c) it fixes responsibility and centres all information concerning certificates in one office.

It must be recognized that, even though immediate steps be taken for the improvement and extension of the agencies for the production of trained teachers, the system of formal examinations will be for a number of years the chief instrumentality for determining minimum qualifications. As a means for the encouragement of higher professional attainments on the part of the untrained teacher, the system of examination and certification is open to the following criticisms:

(1) The written examination questions for the first, second, and third grade certificates are based too largely upon knowledge and information of a purely formal sort. These questions are not such as would test a candidate's teaching knowledge of the subjects of the program of studies of the elementary schools. While this criticism will apply more to the questions in some subjects than in others, it is peculiarly valid for the recent questions in arithmetic, English, history and civics, and psychology.³ It is frequently said that these examinations are easier than the free tuition examinations set for entrance to high school. There is doubtless some connection between the quality of teaching in the elementary schools and the character of the written tests used to determine the initial qualification of teachers.

(2) The initial and practically unconditioned periods for which first grade certificates, certificates to normal school graduates, and certificates to graduates of the high school training courses are granted are all too long. All such certificates should be

¹ See page 31.

² By the provisions of Act No. 37, Acts of 1908.

³ This criticism is based upon the questions used in the examination given February 29 and March 1, 1912, and February 27 and 28, 1913.

granted in the form of a probationary license valid for one year only, subject to renewal for a second probationary year upon the presentation of competent testimony as to successful and meritorious teaching. At the end of a second year of approved probationary service the certificate might be made valid for a period not exceeding five years. No certificate should be made valid "so long as the holder continues to teach in the same town," as is now the frequent legal provision governing certificates. The long life of certificates places a premium on mediocrity and removes a stimulus to professional progress.

4. THE INADEQUACY OF THE NORMAL SCHOOLS

No question affecting the educational system of the state has provoked more argument and contention during the past decade than that relating to the normal schools. None appears more difficult of satisfactory and harmonious settlement. For many years the staunch and active supporters of the normal schools have vigorously opposed the frequent efforts that have been made to disestablish them as institutions receiving public support. The success of this opposition, notwithstanding several distinctly unfavorable reports by legislative commissions, and in spite of the recommendations of the state department of education for the past decade, testifies to the political influence of the normal school supporters.¹ At the same time an unbiased weighing of the available impersonal evidence bearing on the situation inclines one strongly to the conclusion that, for the most part, partisan factors—political, personal, and local—rather than the educational needs of the state have largely determined the course of action.

It is of the first importance objectively and accurately to analyze the real educational situation of the state in this matter and to estimate its need. Nowhere is the teacher problem more acute. Of the 2110 elementary teachers who replied to the questions sent out by the commission, 555, or 26 per cent, were graduates of normal schools. A few of these (74, or 13 per cent) were from standard schools outside the state and were teaching in cities or towns; others (199, or 36 per cent) came from the "higher course" in the Vermont normal schools, roughly equivalent in amount to a high school course, or, in a few cases, to a two-year graduate course;² but 282, or 51 per cent, were the product of the so-called "lower course" of the Vermont normal schools; that is, they had had a training equivalent in duration and maturity to the

¹ The argument that the advocate for the existing normal schools presents to the members of the legislature is simple, direct, and persuasive. It runs something like this: The city schools are getting everything they want in education—long terms, good schoolhouses, and paid teachers. The city children can go to school over good pavements, free of mud and snow. The normal schools alone are left to serve the country teacher and the country boy: they represent the only effort the state makes to equalize opportunities as between city and country. Are you going to give the towns everything and the country nothing?

This is a plea that has seldom failed in the past. The answer to it is contained in the recommendations offered in this report, which propose to devote the state's money to an efficient, rather than to a deficient, service to the country schools.

² In 1911 and 1912 the three normal schools produced together 37 of these. See page 114, note 4.

first two years of high school, but confined to subjects taught in the common schools. This is quite a different thing from that which the term "normal school" usually suggests—a two-year professional course following a four-year high school course. One hundred and thirty-four others, or 6.4 per cent of the entire 2110, had attended normal schools, but had not graduated; 101, or 4.8 per cent, had been in training-classes. Over one-half (56 per cent) of the entire number had graduated from high school, but were without training in teaching. Aside, then, from the teachers trained in schools elsewhere or, since 1911, in the graduate courses in Vermont, and a few high school graduates who have enjoyed a year in the new training-classes, Vermont has, in the proper sense of the term, no professionally trained elementary school teachers.

Though desirable, it will be for years altogether impossible for Vermont to replace all of her rural teachers with graduates of standard normal schools. It would require double the salary, and even so, such teachers are not to be had at present in sufficient numbers for such positions. It is possible, however, for the state at once and boldly to enter upon a definite constructive policy that shall provide a constant and adequate supply of trained teachers, especially for her rural schools. The degree of this training and the abundance of the supply are purely economic questions. How far is Vermont willing to go in order to obtain a sufficient number of adequately trained teachers?

The annual demand for teachers is, of course, variable. Service requiring slight training and commanding low pay shifts rapidly. A liberal interpretation of the recently gathered statistics of the elementary teachers of the state shows that under the existing conditions of lack of training and excessively low salaries, about 450 new teachers are needed each year to replace those who drop out. It is probable that as conditions improve and salaries increase, this number will become smaller.

Where is Vermont to look each year for 400 new and well-trained teachers to conduct her elementary schools in decent fashion? It would be a grievous blunder in answering this question if mere political, personal, or local considerations were allowed to influence the decision; the question is far too vital and means too much to the future of the state to admit of dealing with the situation otherwise than absolutely on its merits. The solution of the problem has hitherto been sought in two directions. For nearly fifty years three, and more recently two, low-grade normal schools have been merely reviewing elementary school subjects; pupils directly from the elementary schools have formed the great bulk of attendance, and during the ten years 1903-12 the three schools together averaged 87 graduates annually from this "lower course." Such rudimentary work is not to be despised, but from the present point of view it is wholly negligible. From their "higher course," which alone deserves recognition here, the three schools have had during the same ten years an average combined annual output of eight, or, including reg graduates and specials, fifteen! What are these among 400?¹

¹ In 1913 Johnson and Castleton together graduated 72 teachers: 18 from their new two-year course for high school

5. THE SUCCESS OF THE TRAINING-CLASSES

As a second means of relieving the need, training-classes were established two years ago. In this time they have put 249 teachers into the field—229 of them into rural schools. Of this total nearly one-third were high school graduates with the year in the training-class as additional preparation; the remainder took the work of the training-class as their senior year in high school. In maturity and weight of personality there is every reason to suppose that the training-class girls were the equals, and in the case of the graduates, the superiors, of the graduates of the old “higher course” in the normal schools; in breadth of education they were certainly ahead; in purely pedagogical training they were perhaps behind. There is theoretical advantage in the normal school in this latter respect: the wide variety of special subjects, such as music, drawing, nature study, and so on, can be dealt with more intensively and effectively by departmental instructors than by a single teacher in a training-class. At the same time, considering their natural limitations and their recent organization, there can be only praise for the training-classes. The teachers in most cases are admirable; the members of the classes seem well selected and, with rare exceptions, efficient; the intelligent enthusiasm of the girls is everywhere marked. On the whole, the state certainly did vastly better for its purpose with its investment of \$8600 in the 126 training-class graduates in 1912, than in the \$20,000 that it put into the 14 “higher course” and 28 “lower course” graduates from the normal schools during the same year. For the purposes of Vermont in its rural schools the former were probably quite as effective teachers.

It seems clear, therefore, as far as actual past performance can be trusted as a guide, that in supplying trained teachers, the state will make far greater headway with the training-classes than by depending on the normal schools. Much has been affirmed as to what the normal schools might do, were they encouraged and supported; especially if teachers' salaries were increased. A change in the last respect would undoubtedly bring betterment. The fact remains, however, that in their best days the normal schools have never been able to make their “higher course” effective in numbers. They have served chiefly as local institutions,¹ and even so have not successfully risen above an inferior grade.

graduates, 30 from the new “lower course” (equivalent to a four-year high school course), and 24 from courses still lower and now discontinued by law. Of these practically all of the higher course graduates are teaching in graded schools; 49 of the 54 others are in rural schools.

The attendance in 1913-14 is especially suggestive. Castleton has 61, of whom 48 are high school graduates. From these will be graduated in 1914 a class of 38, of whom 7 only are in the higher, two-year course, the remainder being from the one-year lower course for high school graduates which competes directly with the training-classes. Johnson has 65 students and will graduate from its higher or two-year course, 8; from its two-year lower course, 4; and from its one-year lower course for high school graduates, 30. Both schools, therefore, are at present essentially large one-year training-classes, operating at heavy expense.

¹Not including the reg graduates and the graduates from the higher course, 66 per cent of the graduates from the Castleton Normal School during the past twenty years were residents of Rutland County, 44 per cent were residents of Castleton and contiguous towns; 18 per cent were residents of Castleton; 42 per cent of the graduates of the Randolph Normal School were residents of Orange County, nearly half of whom were residents of the town of

Under precisely the same conditions the training-classes have been notably successful. The strength of the training-class lies in its purely local application. This is clearly the explanation of its success in contrast to the normal schools; as it is the explanation of what success the normal schools themselves have had. It seems a logical inference that the rural school must expect to draw its teachers from local territory; that a school giving high-grade training for this purpose can never be large and economically conducted. The girl whose teaching ambitions take her from home to school in another part of the state is aiming higher than at a rural school position. Many a girl, on the other hand, will take a teachers course in a local high school and accept a position in the familiar country about her home. Vermont has tried in vain for fifty years to bring pupils to her training-schools; when she takes the training-schools to the pupils there is response at once.

Another apparently insuperable obstacle to the success of the present normal schools as training-schools for rural teachers is the obvious lack of suitable practice facilities in the villages where the schools are located. To be rated successful for Vermont's purpose, these schools must each turn out 150 graduates annually,—a number that would utterly swamp the little practice-classes that the village schools can provide. The training-class has here again a great advantage: its fifteen or twenty girls can be readily accommodated in the neighboring schools; they work there under more typical conditions than prevail in the somewhat artificial practice schools; and their influence and that of their critic-teachers is in turn spread over the entire state.

Moreover, the training-classes have untried possibilities. Newly organized, they have not yet learned to take full advantage of the opportunities for correlation with other school activities. Their work should be extended over two years and moulded into a richer vocational course utilizing all the appropriate facilities that the schools with which they are connected possess. In case the plan of high school centralization¹ is adopted and the state undertakes to develop 15 or 18 strong "regional" schools with full equipment, first-class teachers, and a widely varied curriculum, the teachers course will find the conditions nearly ideal. Apparatus and able instruction will be at hand in all special subjects for fitting the needs of these classes. The teachers in charge should be the best obtainable, and should be made permanent, with whatever assistance may be necessary. With wise development the state will shortly find itself in possession of 15 or 18 small but highly efficient training-schools, each the centre for the elementary school interests of its own limited district, and each coöperating with other local agencies to unify and improve the educational conditions in that single unit.

One of the most commendable features of the training-classes is the ready and familiar resort which they furnish for their graduates in the rural schools near by when aid and advice are needed. It would indeed be an excellent plan to give the training-

Randolph; 25 per cent of the graduates of the Johnson Normal School were residents of Lamoille County, more than half of whom were residents of Johnson. *Vermont School Report*, 1910, page 16.

¹ See page 109.

class teacher supervisory powers over certain phases of the elementary teaching in her district and thus still further focus her influence.

To make these training-classes permanently and adequately successful, one fundamental reform is indispensable, and a second is highly desirable. Rural teachers must be paid higher salaries. For \$7, \$8, and \$9 a week there must be a prospect of \$10, \$11, and \$12. If this is done, the classes will fill up with good material; if not, they must struggle for existence. This is an economic problem, pure and simple. More money to the school teacher was once a matter of benevolent altruism—a charity; to-day it is a cold business necessity, the lack of which is reacting disastrously on the best resources of the community—the children. In the second place, as urged elsewhere in this report, the elementary school teachers should work under conditions controlled by the state. They are already prepared by state-chosen teachers in state-supported training-schools, and are subject to the state for licenses to teach; the amount of their salaries and the manner of payment should be prescribed and guaranteed by the state, and they should be subject to state inspection and criticism. Such a step would involve no radical changes, but would give the central educational authority greatly increased influence over backward and indifferent communities, at the same time dignifying and strengthening the present somewhat uncertain position of the teacher. With these two important modifications made, there is every reason to believe that the training-classes would thrive to the limit of their capacity. Sixteen classes turning out annually an average of 20 graduates each would provide 320 teachers—ample for the rural school demand; the remainder, high grade normal graduates for city schools, may be made up otherwise.

6. A CENTRAL TRAINING-SCHOOL

The teacher problem in Vermont is so predominantly a rural teacher problem that other phases of it sink into insignificance in comparison. There are, however, important reasons for believing that the state cannot permanently confine its provisions for training wholly to the country school teacher. It will be well, before proceeding, to consider briefly the nature of teacher training in general. There has been much obscurity on this point. It is to be feared that the term “normal school” has been used as a shibboleth to divide friends from foes without a clear idea of what such an institution really is. Usage is at present fairly consistent in applying the terms “elementary school,” “secondary school,” and “college” to institutions dealing progressively with certain fixed stages in a youth’s development; these conceptions are necessarily fairly stable. A teachers training-school has no such determining element about it. Its standards are fixed almost wholly by the local social and economic conditions. There is no inherent reason why the kindergarten or the first grade should not be taught by university graduates or doctors of philosophy. Society simply does not yet think it necessary to buy such expensive training for that

purpose. The standard of all so-called "normal schools" or "teacher training-schools" merely reflects the current opinion that the community has of the teacher's function,—the price it is willing to pay for training for a certain purpose. Vermont has paid small "wages," and has received an exceedingly low grade of training or none at all. In the product of the training-classes she is now in a fair way to introduce a very much better grade of preparation among her rural teachers. The question remains: Is there a still higher grade that she should and will provide for certain special purposes? It is important that the problem be thus clearly divided instead of allowing several conflicting purposes to be concealed under one vague name—normal school.

In spite of the varied and confusing forms that the training of teachers assumes in America,¹ there is a certain dominant standard that represents for the time being the best of which the leading communities are financially capable. For elementary teachers this at present presupposes an organization offering at least two years of professional education following a complete four-year course in a high school. The instructors should have had both collegiate and professional training plus actual experience in teaching the ages for which they are now preparing teachers. The work that such a school aims to accomplish may be considered as three-fold: (*a*) to place a candidate in wholly confident possession of the facts in the various fields in which she is to be asked to teach; (*b*) to explain as fully as possible the child mind and nature with which the teacher will have to deal, and to show what experience has found to be the most effective procedures in his education; (*c*) to ensure under expert direction and criticism an actual experience as varied and comprehensive as possible, in recognizing and solving the educational problems that children present, both as individuals and in classes. Considerable laboratory work of this sort is indispensable, and its significance is being more and more recognized as the impotence of purely theoretical training is revealed. These three kinds of work have to do almost exclusively with professional technique, and crowded as they are into two years, leave little time for genuine cultural activity—subjects that clarify and focus one's aims, add new interests, and in general go to swell the teacher's personal equipment. Just here has been the weakness of the normal school hitherto, and new standards are slowly being set. There is a tendency to increase the academic work and plan the course in four years instead of two. Some elementary systems are already employing college graduates who have had normal training in addition. Meanwhile among secondary teachers one or two years of graduate work in education are coming to distinguish the fit from the unfit. Each additional year spent in preparation involves an

¹ The curricula of thirty-six representative normal schools in thirty states vary from one to six years in length; they require for entrance from nothing to a high school diploma; no one subject is required by all; eight have no practice-teaching, nine no work in methods. Some schools train only elementary teachers, others profess to train all grades from kindergarten to college; some have one teacher to 83 students, others have one to 8; some graduate one-third of their students, others one-fourth. The size of normal schools varies from less than 100 to more than 3000 students.

additional expense both for the training and the subsequent salary of its beneficiary. As already pointed out, the fundamental questions are: How far does a given community think trained teachers necessary for its children? and For what amount of training is it willing to pay?

In Vermont it would, of course, be quite possible to continue as heretofore and allow the better positions in the state to be filled by a process of natural selection from merit in the lower grades or from material attracted from abroad. But the recommendations of this enquiry at another point create a situation that should by all means be taken into consideration. It is believed advisable that the smaller high schools should abandon their effort to offer a regular four-year course, and instead combine with the seventh and eighth grades to form "junior" high schools, which shall reorganize their work along somewhat new and different lines. If this plan is carried out, there will be at once 77 of these schools, and more will readily be formed; from 300 to 500 teachers will be needed—possibly from 50 to 75 each year. It is particularly important that the teachers in these schools should have an appropriate training. The problems of the rural community must be especially intelligible and attractive to them. For this purpose it is generally agreed that the untrained college graduate would be markedly inferior to teachers trained in a thoroughly high grade school organized and conducted with this purpose expressly in view; a "normal school," if one wishes to retain the name,—one requiring at least two and preferably three years in addition to a four-year high school course, and planned not to imitate the normal schools of other states, but to show teachers how to deal successfully with Vermont problems. Such a school could provide at the same time for the better grade positions in cities and towns. The nature of its work would cause it to assume at once the leadership of the various training-classes in the state, and to operate in close affiliation with them. Its location would involve various factors. It should be central and accessible; it should be independent of other educational institutions; it should have a good library and ample practice facilities. Such details, however, are for the new state board, recommended elsewhere, to consider and determine.

7. RECOMMENDATIONS

It is recommended, therefore, that the state discontinue at once, as normal schools, the two institutions now being conducted at Johnson and Castleton, and that all available funds and energy be devoted to developing and improving the training-classes and to providing better salaries for elementary teachers. It is further recommended that, as soon as this primary undertaking has been placed upon a thoroughly sound basis, the educational authorities take under consideration the establishment of a new central training-school to serve the needs of the state in providing teachers for its junior high schools and for positions in the higher grades of the elementary schools.

The question of the training of teachers for the upper years of central high schools has been touched upon in two other sections of the report.¹ Although in itself a question of fundamental importance, it does not possess for Vermont the urgent character of the problems discussed above. The large majority of the secondary teachers in the state have received their training in the colleges of Vermont or of neighboring states, and it is apparent that these and similar institutions can meet the need quite adequately provided they improve their facilities for observation and practice-teaching, an improvement that can be hastened by the state's progressive insistence upon better qualifications for its certificates.

¹ See Section IV, pages 71 to 80, and Section XII.

VI

VOCATIONAL SCHOOLS

THIS section discusses (1) the general problem of vocational education, (2) the existing situation in Vermont, and (3) its special trade schools; and presents (4) a constructive program.

The two special schools in Vermont were visited by several members of the enquiry staff, and the general study and the particular recommendations are based upon a familiarity with what is being planned and done for vocational education in this and other countries.

1. THE PROBLEM OF VOCATIONAL EDUCATION

While the entire system of schools in the United States is feeling the pressure of our changing social and economic conditions, there is perhaps no field of education in which more confusion exists than in that relating to vocational training, designated indiscriminately as industrial education or vocational or trade training. Within the last ten years schools for trade instruction have been inaugurated in many states in the Union either as a part of the public school system or related to it, but it is still true that the success of such schools, their adaptation to the needs of their communities, and the relation which they ought to bear to the public school system are far from being completely worked out.

In inaugurating a school system as an agency of civilization, the modern democratic state has in view two distinct objects: first, to develop the mind and the spirit of the youth, to teach him self-control, and thus to fit him for citizenship. This is what is generally understood as education. Secondly, it is the purpose of such a state to fit each child to become an effective economic unit in the state's life. This is vocational education. The state must have both ends in view and must aim to serve them both, but it must also be careful not to confuse them. It is not possible to turn the elementary and secondary school into mere training-places for the vocations. To do this is to abandon the chief purpose for which these schools exist. On the other hand, it is hopeless to expect that a boy or a girl will look toward the vocational school so long as it is wholly unrelated to and separated from the common school system. In other words, the vocational school must have its roots and growth in a common school system which, while its main purpose is to educate, still educates its pupils into an appreciation of the economic conditions and problems of their own countryside. The elementary school must develop the sympathy of the child for the community in which he lives, if it hopes to guide him successfully to a vocational school which shall prepare him for a useful life in that community. To-day the elementary school guides him away from any such vocational ideal. It does not interest its pupils in the trades that they see about them, and a school intended to train for such trades has no connection

with the common school system. There is no door by which the boy passes easily from the one to the other. It is a part of the difficult problem of every modern state both to educate for life and to train for economic productiveness, to develop both the general system of schools for citizenship and a series of special schools or courses for vocations; to have each system of schools sympathetic and helpful to one another and yet not to confuse the two purposes.

Several features of our American life have tended to obscure this relation between education and training, and have tended also to make the relation of the elementary schools to the trade schools more difficult.

One of these difficulties lies in the great emphasis that has been placed in America upon preparation for the professions,— particularly for the professions of law, medicine, and engineering. For these quasi-public callings there is needed not only a long preliminary education, but a sound course of theoretical training. The preparation for a trade demands, on the other hand, a shorter preliminary education, with a technical training to give skill in that trade.

In the United States, as in all other countries, the world lives on the trades, not on the professions. For what we eat, for what we wear, for that with which we are clothed and warmed, we depend day by day on the skill and efficiency of those who go into the trades. Society needs hundreds of skilled men in the trades where it needs one lawyer or physician or engineer. Nevertheless, on account of the prominence of these great professions, it has hitherto been easy, in the United States, to obtain state appropriations for the education that prepares for the professions, and difficult to get support for schools that aim to train men for the farm, for the dairy, for the carpenter's bench, or for the mechanic's lathe.

This hesitation arises not alone out of the relative prominence of the great professions; it is due in great measure to the economic transition through which we are passing. Only very recently in America and in England has the school been looked to for the training of men for the trades. Apprenticeship was the door through which the boy formerly went into trade. Until recently the girl did not go into the skilled trades at all, but to-day the problem of trade education is just as important for the girl as it is for the boy. Furthermore, the apprenticeship method of training for the trades has broken down. The school is practically the only agency that society offers for the formal preparation of its youth for those fundamental and necessary vocations upon which society must always live. For this reason, therefore, the necessity for the trade school and for its right articulation with the public school system has become in America in the last twenty years a pressing economic as well as a pressing educational question. The trade schools in European countries, notably in Germany, have been carried to a high degree of efficiency. They are related in a most successful way to the system of common schools. The child who is steering toward a trade—and the great majority of all children travel in that direction—begins to differentiate in his school course between his tenth and his twelfth year, and finds open for him a trade

school articulated with his elementary school, in which he may get the necessary grounding and skill for a successful entry into his chosen vocation.

The schools that have been inaugurated to meet this need in the United States have assumed the following forms: an industrial school intended to prepare the wage-earner in the mechanical trades and industries; a trade school in agriculture planned to train the farmer, the dairyman, and the horticulturist; a commercial school intended to give training in commercial pursuits like bookkeeping, stenography, typewriting, and salesmanship; and finally a training-school in the household arts intended to prepare those who are not wage-earners for occupations connected with the household.

This effort is not a new one. Fifty years ago, when the schools of agriculture and mechanic arts were started, the idea of education for the trades was a strong factor in their inauguration, but such schools at that time, and for many years after, had to meet not only the lack of an adequate elementary school system in which they might find root, but they had to meet also an almost overpowering tendency to transform themselves into schools for the professions. Thus, the schools of mechanic arts, founded originally—like that at Worcester—for the training of mechanics, developed into schools of engineering. The agricultural schools, instead of training men to become farmers, became training-places for scientific agriculturists, whose functions lay in the main either in teaching or in work for the Department of Agriculture. To-day the elementary school system has developed to the point at which the trade school may well find congenial soil for its roots, if only it can be rightly related to the elementary school, and if it can be held firmly to its legitimate work,—the training of youth for a trade rather than their preparation for a profession. Let us turn now to a consideration of what has been done in Vermont.

2. THE EXISTING SITUATION IN VERMONT

In the fortieth Vermont School Report—that of 1908—the superintendent of education calls attention in an effective way to the industries of Vermont and the relation that vocational training should have to these industries. It goes without saying that the form of industrial school which any state should adopt will depend upon the trades which that state needs to foster. In this report the superintendent brings out clearly that agriculture is the principal industry of Vermont, although the state may be described rather as a state of husbandries, and that its agricultural pursuits must lie along certain lines of specialization, like butter making, sugar making, poultry raising, stock breeding, and timber growing.

Next to agriculture the superintendent of education points out manufactures and their possibilities, and next to these forestry and the possibilities of timber; and he recommends in this report that the curriculum should be enlivened and made practi-

cal by the addition of such studies as would interest the student in agriculture, manufacture, and forestry.

There was issued also by the superintendent of education, in 1911, a manual of agriculture designed for the guidance of teachers. This, with the introduction of serious courses in manual training, domestic science, and agriculture in a very few schools, constitutes the most of what has been done in the effort to make the elementary school and the secondary school touch more directly the occupations of the communities in which the schools are situated. It also goes without saying that the most effective preliminary preparation for any vocation lies in accurate and fundamental grounding in the preparatory studies of the general curriculum; for example, the knowledge of good English and of elementary mathematics are effective preliminaries to skill in any vocation.

There are at present no adequate or trustworthy statistics to show the rate and amount of progress of pupils in the rural schools in the courses of instruction that look toward vocational opportunities, but the careful observer cannot avoid the inference that the great bulk of the pupils who leave the rural schools have done little more than to learn to read indifferently, to write clumsily, and to make ordinary calculations with difficulty, while they have not been pointed in any effective way toward any skilled vocation. Still less have they found in their school curriculum sympathy with these callings or the preparation for skill in them. The instruction in manual training and domestic science that is given in the elementary schools is confined almost wholly to the cities, and is a negligible influence so far as the larger problem of preparation for a vocation is concerned. The present elementary school system, therefore, lacks the qualities that will either interest a pupil in the trades or will give him the elementary grounding that furnishes skill in them.

In the secondary schools 103 pupils were reported as studying agriculture during 1911-12 in twelve approved high schools, and 126 pupils were studying domestic science in two approved high schools,—Burlington and Rutland. Four pupils studied agriculture in one approved academy, and nine pupils were receiving instruction in domestic science in another approved academy.

A commercial course of study is found in a greater or lesser degree of organization in twenty-six of the seventy-four approved high schools, in ten of the eighteen approved academies, and in seven of the twenty-five parochial schools. Eight hundred and ninety-one pupils—about one-sixth of the whole number in the approved high schools—were enrolled in commercial work, and two hundred and eighty, or about one-seventh of the pupils in the approved academies, were enrolled in similar courses.

In 1908 an annual state aid of \$250 was authorized for any high school or grammar school whose course of study included instruction in manual training approved by the superintendent of education. The total expenditure for this purpose was limited to \$5000, a sum sufficient to subsidize twenty schools at the rate assumed. Only four schools were receiving such aid in 1911-12. The legislature of 1912 amended

the act of 1908 by providing for an annual state aid of \$200 for high school courses in agriculture, in domestic science, and in manual training, but this amendment did not become effective until July 1, 1913. This brief statement shows in sufficient detail what steps have been taken on the part of the state to introduce into the curriculum studies that make for vocational skill. In the main these studies—such, for instance, as manual training—serve to enrich the curriculum and to interest the pupil of the elementary and secondary school in vocational subjects. They are not intended to transform the schools into trade schools.

3. SPECIAL TRADE SCHOOLS

In the establishment of distinct trade schools, also, Vermont has been conservative. Only one school that may be fairly called a distinctive trade school of the elementary type is to-day in existence upon state foundation. This is the Randolph State School of Agriculture. In 1910, when the Randolph Normal School was discontinued, there was established in its stead a state school of agriculture for the purpose of "developing the agricultural resources of the state through practical instruction in agriculture, including tillage, crop raising, gardening, orcharding, forestry, dairying, stock raising, farm management, marketing, and the allied subjects of domestic science and the manual arts." It will be noted that the field of this school has been made so broad that it may touch almost any trade that has any connection with agriculture. The state provided \$20,000 for the purchase of real estate, the erection of buildings, and the provision of equipment, and an annual appropriation of \$10,000 has been made for the maintenance of the school.

The Randolph State School of Agriculture began its work in the fall of 1911, enrolling fifty-six young men during the year 1911-12. The principal of the school reported, March 24, 1913, eighty-three students enrolled during the year 1912-13, of which number seventy-two were in attendance. The average age of entrance was between sixteen and seventeen. The majority of the students came from the distinctively rural communities of the state, with the educational equipment furnished by the rural schools. About half of the pupils had one or more years of high school work. During the past year eleven of the fourteen counties were represented in the enrolment of the school. This school offers a two-year course of instruction for pupils with only a common school preparation, a one-year course for high school graduates, and a six weeks' winter course in dairying and general agriculture. A special elective course of one year is also announced. There is no doubt of the desirability of such a school as the Randolph School proposes to be. It is well located, and while not fully equipped as yet for carrying on effectively its practical instruction, its promise is large. It is a vocational school in the proper sense of that term. The legislature of 1912 appropriated \$5000 for the special purposes of the school and \$25,000 for the construction of a dormitory.

A second school of the Randolph type was authorized by the legislature of 1912 (Act No. 67), to be located in Addison or Rutland County. The location and establishment of such school were conditioned upon the approval of the governor and the educational commission. An appropriation of \$20,000 was provided for construction and also an annual appropriation of \$10,000 for maintenance.

In 1910, through the generosity of Mr. Theodore N. Vail, a school of agriculture was organized in connection with the Lyndon Institute at Lyndonville. While the school is separate from the institute, the arrangements are such that the two institutions coöperate in the use of buildings and the employment of some of the teachers.

The object of this school of agriculture is to give "practical and theoretical instruction to Vermont boys who have neither the money nor inclination to pursue an extensive college course. The agricultural school is strictly a farmer's school, and it aims to educate students along the various lines of work that will be met with on the farm and in the home life. It is not intended to fit students for college, but to furnish a line of training that will be of immediate use in farming and its allied industries, like carpentry, blacksmithing, masonry, and concrete work, preparing the students not only to do farm work intelligently, but also to do for themselves practically all the other work in connection with the farm, such as the repairing of buildings from basement to roof and the repairing of wagons and machinery; in a general way, making them independent of any outside skilled labor and also putting them in a position to assist their neighbors whenever spare time may permit."

The course covers a period of two years of nine months each. The theoretical work is given at the Lyndon Institute, while the practical work is done in the shops and on the school farm. Pupils who have passed the state examinations for free tuition in secondary schools are admitted. A few pupils are admitted who have not had the requisite amount of preparation, provided they satisfy the director of their ability to pursue the work with profit.

The annual expense of attendance, about \$200, must be met by all pupils. This is done in two ways, either by cash payments or by work. Under the work payment system the school offers a few scholarships to Vermont boys, financially unable to pay their way. These scholarships enable the holders to pay their expenses by manual labor during vacation periods as well as during term time. Each pupil on the cash payment system is required to do six hundred hours of farm work before a certificate of graduation will be given.

During 1911-12, fifty pupils were enrolled, twenty-seven in the second (Senior) year, all of whom came from Vermont, and twenty-three in the first (Freshman) year, five of whom came from Massachusetts. During 1912-13, seventeen second year pupils and thirty-six first year pupils were enrolled, a total of forty-three, ten of whom came from other states.

For its regular class-room work the school utilizes the building of the Lyndon Institute. For its own special purposes it has a well-equipped shop-building, containing

the blacksmith and carpenter shops; adequate farm buildings—horse stable, dairy barn, poultry house, root cellar, and so on; work horses, herds of cattle, poultry, swine; a school farm consisting of over one hundred acres of tillage land divided into upland and lowland. In addition the practical resources of Mr. Vail's "Speedwell Farms" are at the disposal of the school. The study plan of the school provides a carefully worked out combination of class-room instruction and practical work, under the direction of a competent staff of teachers. In addition to its usual teaching activities the school has undertaken considerable agricultural extension work, such as orchard demonstrations, dairy testing, and farmers' institutes.

These two schools are trade schools in the true sense, and they are seeking a rational and safe relation to the school system. They constitute to-day the only serious attempts in the state of Vermont to deal with vocational training.

4. A CONSTRUCTIVE PROGRAM

The school problem in Vermont, as in all other states, lies in the question how best to utilize the time of children from six to eighteen years old, so that these shall contribute in the most direct way both to citizenship and to economic efficiency. The state to-day compels the attendance in school of normal children between the ages of eight and fifteen inclusive for at least twenty-eight weeks of each year. Unless, however, the state is able to provide means by which the time of its children is more profitably and more economically used in school than it is at present, there is no justice either from the standpoint of morals, education, or economics in its monopoly of the years of compulsory school attendance. The present situation lends itself to a régime under which the communities suffer from idlers who are idlers because they have not been taught to do work that is based upon the acquirement of skill. What ought the state to do in order not only to develop the intellectual and moral qualities of its children, but also to fit them to become economically productive?

The first step in the answer to this question has been made in the policy that has been outlined for the reform of the school curriculum in the elementary and secondary school and for the reorganization of the educational administration. No successful system of trade schools can be effected until the general system of public schools is efficient and is in sympathy with the economic problems of their environment. On this basis, a policy similar to that suggested for the training of rural teachers would appear to meet the situation most quickly and completely. This would involve the establishment of a thorough vocational course in agriculture in the lower or junior division of each of the proposed central or regional high schools. Such action would provide 15 or 18 stations for teaching the principles of farming to boys from 12 to 16 years of age. The sole purpose would be to make successful farmers. As compared with special schools, such a plan has the advantage of economy, it will serve a larger area, and can be introduced as soon as competent teachers and a modest equipment

can be secured. It could not hope to duplicate the facilities that the school at Randolph enjoys, but the great majority of these central schools would be so situated as to bring fully adequate facilities for this purpose within easy reach. With right encouragement and advice it is hardly too much to expect each such community eventually to develop its own model farm. In the two upper years of the central school advanced courses should be provided for such pupils as wish to become teachers, farm managers, or special experts, and who will probably go on to a college of agriculture. It goes without saying that a first-class instructor should be employed — preferably a graduate of the state agricultural college. Under his direction the department as a whole should become the centre of agricultural experiment and instruction for the entire vicinity; it should maintain close relations with the agricultural college, and serve as a distributing point for its literature and advice. For the requisite academic work the courses in agriculture should coöperate with all other courses in the interests of economy.

Following this fundamental step, the state could then proceed to develop gradually vocational schools for the training of its youth in those activities upon which the economic welfare of Vermont depends. To-day it is clear that her greatest opportunity lies in the intensive development of her agricultural resources. The beginning of this intensive development must be made in the rural schools through a form of instruction and a method of organization that will cause agriculture and its attendant activities to become to the boys and girls of the state a vocational goal worth striving for. Supplemental to the instruction given in the public school systems, there will need to be developed a certain number of schools of the type existing in Randolph and Lyndonville, but the number of such schools, their location, their relation to the elementary school system, and their development must lie in the hands of the educational administration of Vermont. This is necessary for two reasons. First of all, the adaptation of the vocational schools to our American conditions has not yet been thoroughly worked out. One cannot transfer bodily the German trade school to America. It has taken generations to develop this trade school in Germany, and it has depended in large measure for its success upon the German stratification of society. The son of the small tradesman, of the mechanic, of the railway employee in Germany expects to remain in the social plane in which he has been born. The whole arrangement of society steers him naturally and easily into a trade. This situation does not exist in America.

In the second place it must be realized that experiments in trade schools are the most costly of educational experiments, just as their successful conduct is economically the most profitable. The following table from the report of the Wisconsin Commission upon plans for the extension of industrial and agricultural training (1911), showing the expense of the county schools of agriculture of that state, contains pertinent evidence upon this point.

COUNTY SCHOOLS OF AGRICULTURE OF WISCONSIN. FINANCIAL STATISTICS, 1911

COUNTY	<i>Pupils enrolled</i>	<i>Total Cost per Pupil</i>	<i>Cost to State per Pupil</i>	<i>Cost to County per Pupil</i>
Dunn.....	93	\$112	\$43	\$69
Marinette.....	40	179	100	79
Marathon.....	49	121	81	40
La Crosse.....	157	91	26	65
Winnebago.....	78	91	52	39

These county schools of agriculture correspond in general to the State School of Agriculture at Randolph, where, with an enrolment of 83, the total cost per pupil amounted, in 1912-13, to \$147.55.

In addition, such experience as we have had shows that the trade school, whether agricultural or mechanical or commercial, is in the main a local school. The necessity for pupils to leave home to attend an adequate school increases so enormously the burden of family and individual expense that such schools must be easily accessible. While, therefore, it seems clear that the organization charged with the administration of the schools of the state should proceed as rapidly as possible to take up the problem of trade education, it should proceed with fair conservatism.

It is perfectly clear that one step in such a development should be some sort of relation between the State Agricultural College and the training-schools in agriculture. Here are two distinct forms of institution, but it would be undesirable that they should be developed without relation to each other as they have been hitherto, and one of the problems of the board of education in its development of agricultural trade schools must be the establishment of a fruitful relationship between the State Agricultural College and the trade schools of agriculture.

While the trade of agriculture is to-day that one whose development would have most significance for Vermont, it goes without saying that there are other vocations into which the youth of the state go and for which they should have opportunity for a technical fitting. The list of the gainful occupations in Vermont for which vocational training might be specially devised shows great diversity, but brings out the fact that the pursuits of agriculture are those which at this time offer the widest opportunity for the state's action.

A wise program in the formation of vocational schools would seem to be, first, the reform of the public school system so that the youth of Vermont may be educated toward the occupations of the communities in which they live; secondly, the establishment at each of the proposed regional high schools, in its four-year junior division, of a high grade vocational course in agriculture for boys from 12 to 16 years of age, and in its senior division of advanced courses for older pupils; thirdly, the gradual formation under the direction of the board of education of trade schools in agriculture rightly related both to the public school system and to the Agricultural College; and finally, the investigation by the state board of the question of trade courses or schools for other vocations.

VII

RECORDS AND ACCOUNTS

THE matter of records and accounts naturally came to the attention of several members of the enquiry staff. A special study was made of the situation in some twenty towns.

BUSINESS ADMINISTRATION

The most practical improvement suggested by this study of the business administration of the Vermont schools is that a uniform method of accounting should be adopted by the towns.

The blanks on which the towns supply their data to the state are at present uniform, but the accounting methods and results are variable. Unless these methods and results also are uniform, it is not possible for the state to receive correct information.

The essential object of the method of accounting should be an exhibition of the true revenue and expenditure of the schools of the town. Only by adopting this method can uniform results be secured. Instead of the true revenue and expenditure, most of the town reports contain merely a summary of the actual receipts and payments, and these reports of itemized expenditures are cast in such variable forms that no two of them are alike. A report of actual receipts and payments is inadequate, because the total payments made by a concern during a year do not necessarily exhibit the total expenditures, or the total cash receipts do not necessarily exhibit the real income. Thus, if a corporation's income is \$10,000 for a certain period, and during that period it lives on its credit and does not pay the charges accruing, which amount say to \$9000, to report that its expenditures were *nil* because no bills were actually paid does not, standing alone, convey a true statement of the facts. If these unpaid bills of one period are paid during the next period, this does not make the payments, standing alone, the true expenditure for the second period; a deficit thus caused in the second period, if unexplained, is misleading. The method suggested below enables the towns to show, in addition to their actual receipts and payments, their true income and expenditure also. The state will thus be correctly informed.

The absence, in most town reports, of statements giving the real resources and liabilities of the schools has produced a divergence of practice in regard to the funds. In some towns an accumulated deficit is carried forward as a school debt, but the custom is not uncommon for towns merely to charge or credit the General Funds of the town with school deficits, or with surplus revenue from the schools, as the case may be.

There is nothing complex in the suggested method of accounting from an accountant's standpoint, but it must be remembered that a form to carry out this method would be used by several hundred towns, and by as many officials, most of whom possess no especial accounting qualifications. The problem, therefore, is to prepare a form

that will be simple enough to be comprehended by all who use it, and that will yet obtain the desired result.

The form must exhibit the finances of the town schools so as to give, in general, a presentation of the accounts in such a form that the distribution of the expenditure for different items in school control and school instruction can be seen at a glance. It is desirable to use, or if necessary adopt, the forms recommended by the United States Bureau of Education and the Department of Superintendence of the National Education Association.¹

LEGAL DATE OF REPORTS

One reason for the absence of correct accounting in the Vermont schools is found in the imperfect time sequence imposed by law.

Two financial reports are required. One of them, an itemized statement under oath of the actual cash expenditures of the town for school purposes for the fiscal year ending June 30, must be filed with the town clerk by July 3. This report is for the information of the state authorities in apportioning the state aid, and is a prerequisite for such aid, the law requiring that it be transmitted to the superintendent of education by July 10. The other report required by law is a full record of the actions of the board of school directors, together with an exhibit of the orders drawn for school purposes. This also must be filed with the town clerk by July 15, and in a printed form.

The state aid, an important element in the full report due on July 15, is thus dependent upon the preliminary report due on July 10. But it is evident that the amount of the state aid can hardly be calculated on the basis of the July 10 report and announced in time to be of use in the report due on July 15. The full report on July 15 must thus be necessarily defective in an essential respect. This difficulty, imposed by the law itself upon the school directors, has prevented serious attempts to improve the accounting. It has also, probably, had an effect even upon the preliminary itemized statement. Such anomalies generally arise, as is true probably in this case, from laws passed at different times, and with different objects, and to a failure to harmonize them.

The remedy is simple. The law should be amended so as to require the school directors to bring the fiscal year to a close on June 30, but to file their full report on September 1 instead of on July 15. This would enable the report, by including the state aid, to give the true revenue and expenditures.

In addition to this simple yet essential change it should further be enacted that the school directors be required to ascertain the entire indebtedness for loans and unpaid bills up to June 30, and to incorporate these articles in the preliminary statement furnished to the state. To this end, the law should provide further that all bills and claims by creditors, with the necessary showing of details, should be rendered at an early date after June 30, say by July 5. Appropriate penalties for delay

¹ U. S. Bureau of Education Bulletin, 1912, No. 3. Whole number, 471.

beyond that day would ensure this presentation. The requirement for this speedy closing of the fiscal year's accounts should greatly expedite the preparation of the current indebtedness as it stands on June 30.

The items that should be included in the preliminary report of the school directors, and the form in which it would seem best to cast these items, along with a suggested form for the complete and final report for the schools of a town, will be found in the bulletin on uniform records and reports to which reference has been made.

These improvements in the form of accounting and in the time sequence that will enable it to be done correctly are the most important suggestions that need to be made. There are, however, numerous changes in other documents, which, while of less moment, would contribute much toward the efficiency of the schools' business administration.

RECORDS AND MEETINGS

In the Vermont town, the board of school directors being the school authority in which is vested by law the disbursement of the school funds, the record of its proceedings is the foundation of the school transactions and should be kept with care. The keeping of this record is the duty of the clerk, who is appointed by the board.

The law requires the keeping of "a permanent record of the proceedings of the board."¹

This "Permanent Record" should be kept according to a more businesslike system than the present. A bound book should be provided for this purpose, and the book should bear the caption, "Permanent Record." In this book should appear the minutes of the proceedings of the board, and especially the following:

1. The election of the chairman.
2. The appointment of the clerk, and his resignation should that occur.
3. Memoranda of all agreements pertaining to the appointment of teachers, the regulation of their salaries, etc.
4. Memoranda of all contracts made by the board, especially contracts for the transportation of children.
5. A clear definition of the period covered by the school term.

The school district will thus have, in a form to which reference can always be made, the fundamental facts upon which the administration and the financial operations of the district depend.

The law provides² that the board must hold its first meeting on or before the third day of July, in order to organize and elect a chairman. Other meetings are left to the discretion of the board. This seems wise and allows each board to meet its own local exigencies. The method of calling a meeting is not of great importance, but it might be well to provide specifically that it be done by the clerk upon the request of any one of the directors.

¹ Chapter 45, section 999.

² Chapter 45, section 989.

DISBURSEMENT OF SCHOOL MONEYS

The law,¹ in the section defining the duties of the board of school directors, provides that they shall "draw orders on the town treasurer" in payment of the expenses incurred by them in the management of the schools.

The method of attesting the order varies, the law apparently leaving to the discretion of the board whether orders shall be signed by all three of the directors. In practice sometimes one director signs the order for himself and his co-directors, the fact being indicated by the identity of the handwriting. In one instance it was found that blank orders were signed in advance by two directors, leaving the body of the order to be filled in by the third director when he added his signature.

It is suggested that each order for the disbursement of money for school purposes shall bear the actual signature of two directors. It might be even better to alter the law and remit to the clerk alone the ministerial function of signing the orders. The board would thus be the executive authority in the school district, and the clerk the official who would certify the expenses authorized by it. This would simplify the administration, but the minutes of the board would have to be kept with great care, and the clerk should be disabled by law from holding any incompatible office, such as that of town treasurer.

The statement of the purpose for which orders are drawn was found in many cases to be inadequate. Orders often show only such statements as: "Pay to the order of John Doe thirty dollars for transportation and charge same to account of moneys appropriated for school purposes." Such an order indicates merely the fact that a certain individual is paid for transporting children to school, but it lacks the essential facts of the number of children transported and the period of time covered by the transportation, so as to ascertain whether the service for which the order is drawn is authorized by the contract for transportation.

A bill should be rendered at the end of each school term by each person authorized to transport children, and should contain the name of the school for which the children were transported, the names of the children carried, and the period of time over which the transportation was made. The order should refer directly to the bill, so that verification of the facts may be possible.

The orders for the payment of the teachers' salaries are very frequently drawn as loosely as those for transportation. It is common to find such orders merely specifying "for teaching —— weeks."

The orders for teachers' salaries should contain the following:

- | | |
|---------------------------------|-----------------------|
| (a) Name of teacher | (d) Number of weeks |
| (b) Name or number of school | (e) Rate per week |
| (c) Dates of the period covered | (f) Amount to be paid |

It is a simple matter to have on hand a regular printed blank showing these items.

¹ Chapter 45, section 990.

SUPPLIES AND OTHER EXPENDITURES

The orders for the payment of other expenditures sometimes specify merely "for supplies" or "for labor." These orders should contain a reference to the bill and show generally the nature of the supplies or expense and the date thereof. The bill should contain an itemized statement.

The purchasing system would be improved if the school directors were to purchase only on written requisitions, which should be kept in book form with duplicate carbon copies. When the bills are received the items should be compared with the requisition, and the fact that the bill had been received should be noted on the duplicate, in order that it may be determined readily what bills have not been received and consequently what is the outstanding indebtedness.

If these suggestions were adopted, the orders for the disbursement of school moneys would show, in a general way, all the necessary information that would enable one not acquainted with local affairs to acquire a clear conception of the purpose of the order, and of its details. The orders should have securely affixed to them the bills for which they authorize the payment. After the audit by the local auditors, the orders with the bills attached should be filed in the same succession in which they appear in the town treasurer's cash-book, and they should remain in the custody of the town treasurer for future reference.

PAYMENT OF TEACHERS' SALARIES

No regularity prevails as to the payment of teachers. The salary has been paid for as short a period as one week. Usually the payment is for from four weeks to a school term.

It is certainly desirable that school teachers, like all other classes of persons on salary, should be paid at regularly fixed intervals. The complication that exists is caused by the general methods of financing the town. The taxes come in irregularly, and the treasury of a town is often, therefore, so low as to make regular payments difficult. The town, however, should not shift this burden to the shoulders of the school teachers; it would be better for it to borrow money for short intervals and to pay the teachers regularly.

The law provides¹ that "a teacher in the public schools of any town shall be entitled to receive monthly payment of wages due under the contract of said teacher with such town, provided such teacher demands of the board of school directors such monthly payment." This principle of monthly payments should be carried into effect, and it would seem wise to make it mandatory.

¹ No. 45, Acts of 1908, section 1.

TRANSPORTATION

The law provides¹ that "said board may, in its discretion, provide conveyances for pupils to and from school at the expense of the town from such points as it designates, or may pay a reasonable sum for the board of such pupils while in attendance upon school." Any person interested may appeal from the decision of the board.²

The conveyances are owned by the towns in some cases, but in no instance was it found that the towns owned the horses. The supplying of horses is included in the contract with the individuals operating the conveyance. Parents of pupils are allowed to furnish transportation for their own children as well as for others residing in the same neighborhood, and are paid therefor. Frequently it appears that parents so contracting are lacking in public spirit and drive rather hard bargains with the school directors; well-to-do people are found who derive revenue from transporting their own children to school.

Contracts for transportation are occasionally put into writing, but in most cases they are based upon a verbal understanding with the board. Sometimes no agreement of any kind is made with the board beforehand, but when the period of transportation is over a settlement is negotiated between the town and the parties engaged in the work, and usually such a settlement is not in favor of the town.

It is suggested with some emphasis that in every case of a contract for transportation, the contract should be made before the commencement of the school term, should be in writing, and should embody all details, such as compensation and the number of children to be transported, which might later be matters of material dispute. The contract signed by both parties in interest should be retained by the clerk of the board of school directors and recorded in the permanent records.

These suggestions, taken in connection with the forms that are recommended for rendering the reports, would provide a business system for the Vermont schools that would be quite adequate to the public needs, and one sufficiently simple to be practically available.

¹ Chapter 46 of the General Laws, section 1006.

² Chapter 46 of the General Laws, sections 1007, 1008.

VIII

THE FINANCIAL SUPPORT OF THE PUBLIC SCHOOL SYSTEM

BEGINNING in 1782 with a general provision for school support at the option of the towns, the requirements for school maintenance have been steadily advanced. In 1866 the common schools became entirely free. In 1902 the state tax was increased to eight cents, in 1904 every town was required by law to provide for secondary instruction, in 1906 state aid for transportation of pupils was voted, in 1908 state aid for manual training, in 1910 state aid for teachers' training courses in high schools, and in 1912 there was a consolidation of state school funds.

STATE REVENUES APPLIED TO ELEMENTARY AND SECONDARY SCHOOLS

Until the passage by the legislature of 1912 of an act providing for the consolidation and distribution of the state school funds, the state revenues applied to elementary and secondary schools were as follows:

(a) A State School Tax was assessed annually at the rate of eight per cent upon the grand list,¹ and after receipt at the state treasury was apportioned by the state board of education² and paid to the several towns and cities in proportion to the number of legal schools maintained during the preceding school year. In making the general apportionment, \$45,000 was deducted from the total and divided among the towns raising fifty per cent or more of their grand list for school purposes. The grand list is one per cent of the assessed value of the real and personal property plus the ratable polls. The report of the state treasurer shows that the eight per cent tax for 1911 amounted to \$165,632.41. After deducting the \$45,000 reserve, \$120,632.41 remained for apportionment among 2425 legal schools. For 1912 this tax amounted to \$176,603.75, which, less the \$45,000 reserve, left \$131,603.75 available for apportionment among 2397 legal schools.³

(b) The Permanent Public School Fund was created in 1906 by combining the \$240,000 returned by the national government to the state in settlement of Civil War claims, the Huntington Fund of \$211,131.46, and the United States Deposit Fund of \$669,086.79, making a total of \$1,120,218.25. The principal of the fund amounted to \$1,120,596.40 on June 30, 1912. The income has been apportioned to the several towns, according to the number of legal schools maintained,⁴ \$15,000 being deducted from the total in making the general apportionment and divided among towns raising fifty per cent or more of their grand list for school purposes. Aside from the \$15,000

¹ Section 1091 of the Public Statutes.

² In accordance with the provisions of sections 1095 and 1096 of the Public Statutes, as amended by Nos. 34 and 47 of the Acts of 1908.

³ The apportionment for 1911 was \$120,602.16; for 1912, \$131,876.63.

⁴ Under the provisions of section 1084 of the Public Statutes.

reserve, there was distributed from this source \$36,361.31 in 1911, and \$34,807.49 in 1912.¹

(c) The Transportation Aid of \$20,000 appropriated annually for the payment of transportation and board of resident pupils in attendance upon the elementary schools in the several towns.² In 1912 the sums distributed varied from \$15.67 to the towns in Grand Isle County to \$3,118.75 to those in Windsor County, and from nothing to four towns to more than \$750 to the town of Springfield.

(d) Union Supervision Aid. Since 1906³ the state agrees to pay annually to the towns concerned, toward the salary of the union superintendent, the sum of \$1000 when the annual salary of the superintendent is not less than \$1250, and in addition thereto one-half of the excess above \$1200 of any superintendent's salary; such additional apportionment to any one union not to exceed \$300. Under the provisions of this law there was paid to the several towns under union supervision for 1911 the sum of \$44,224.99, and for 1912 the sum of \$50,843.

(e) Rebate for Advanced Instruction. Chapter 47 of the Public Statutes requires towns either to maintain a high school or to provide for the payment of the tuition, in other schools, of pupils desiring secondary school advantages. Section 1023 of this chapter contains certain provisions for state aid to towns paying this tuition. On the basis of tuitions not exceeding \$24 per year, there was paid to towns expending for school purposes fifty per cent or more of the grand list, one-half of the amount expended for tuitions; to towns expending sixty per cent or more, three-fourths of the amount, and to towns expending seventy per cent or more, the entire amount. By the terms of Act No. 72, Acts of 1912, an appropriation of \$59,982.51 was made for the payment of the rebates for advanced instruction for 1911 and 1912. The section providing for the payment of these rebates was repealed by section 9, Act No. 76, Acts of 1912.

Consolidated School Fund.⁴ In 1912 the receipts from the eight per cent state tax and the revenue from the interest on the permanent school fund were, together with an annual appropriation of \$50,000, consolidated into a single fund for apportionment and distribution among the various towns and other school units for the encouragement of public education. By the establishment of this consolidated fund the former provisions for special state aid for advanced instruction, and for transportation and board of pupils, were repealed. This consolidated fund is to be apportioned according to the following graduated scheme:

(a) On account of current expenses.

Towns devoting more than 50 per cent of their grand list to current school expenses shall receive 40 per cent of this excess; those so devoting more than 60

¹ The total of this distribution, taken from the report of the state treasurer for 1911-12, page 71, is \$101,168.80.

² By the provisions of section 1014 of the Public Statutes.

³ Section 941 of chapter 42 of the Public Statutes.

⁴ By the provisions of Act No. 76, Acts of 1912 (approved February 22, 1913).

per cent shall receive, in addition, 20 per cent of such excess; and those so devoting more than 70 per cent shall receive, in addition, 10 per cent of this last excess.

(b) On account of tuition for advanced instruction.

Towns expending 50 per cent of their grand list for current school expenses shall receive 25 per cent of their annual expenditure for high school or academy tuition up to \$30 per student per year; those which so expend 70 per cent of their grand list shall receive 50 per cent of their outlay for tuition with the same limit. To make this effective, the average weekly salary of the elementary school teachers must not exceed \$11, nor may the annual number of weeks of elementary school exceed 36.

(c) On account of transportation and board.

Towns shall receive 25 per cent or 50 per cent of their expenditure for transportation and board on the same terms as in (b), with the same proviso as to salaries and number of weeks of school.

(d) On account of trained teachers.

Towns shall receive one dollar per week for each graduate of a normal school, training course, or recognized kindergarten training-school who is employed as a teacher in a rural school. Such graduate must be legally qualified and certified, and must have received not less than \$7, exclusive of board, as a beginner, and at least \$8 after 30 weeks of teaching in rural schools since graduation.

(e) The remainder of the fund shall be divided among the towns and unorganized units according to the number of legal schools in each, provided that:

(1) When a school has been discontinued the town shall be entitled to its share as a legal school for one year after its discontinuance; to one-half of such share for the second year, and to one-fourth of such share for the third year after discontinuance.

(2) A town expending less than 40 per cent of its grand list for current school purposes shall forfeit a corresponding percentage of its share of the remainder of the fund, and the sum forfeited shall be credited to the fund.

(3) The school board shall furnish to the town clerks on or before July 3 annually, sworn statements of data concerned in the above provisions; and the town clerks shall, on or before the 10th of July, certify the same to the superintendent of education.

LOCAL SUPPORT FOR ELEMENTARY AND SECONDARY SCHOOLS

Each town in the state is obliged to maintain for at least twenty-eight weeks in a year (one hundred and fifty days, including the usual holidays and others allowed by law) a sufficient number of elementary schools for the instruction of children who may legally attend the public schools in that town. These schools are to be located in such places and held at such times as, in the judgment of the board of school directors, will

best serve the interests of education and so far as practicable give the pupils of the town equal advantages. The board of school directors is authorized to provide conveyance for pupils to and from school at the expense of the town, or to pay a reasonable sum for the board of such pupils while in attendance upon school (Public Statutes, chapter 46). A special state aid is granted to towns furnishing transportation and board for their resident pupils in attendance upon elementary schools.

The establishment and maintenance of kindergartens and evening schools by towns is also authorized.

The statutes (section 1017) require that a town must maintain a high school or furnish higher instruction for its advanced pupils as follows: "The board of school directors shall, at an expense not to exceed eight dollars a term or twenty-four dollars a year for each pupil, unless the board is authorized by vote of the town to pay a higher tuition, provide and arrange for the instruction of advanced pupils in a high school of an incorporated district or an academy within the town, or with high schools or academies of other towns within or without the state." If a town does not maintain a high school of the first class (four years), the board must provide and arrange for the instruction of the advanced pupils of the town in other schools for the remaining years necessary to complete the course or courses of study in a high school of the first class. Special state aid is provided under certain conditions to towns paying tuition for advanced instruction.

The chief source of support for the elementary and secondary schools of the town is through a local tax of not less than twenty per cent of the grand list.

The grand lists of the 268 towns and other school tax units for 1912 ranged from \$342 to \$167,588; the median was about \$4500, that is, half paid more and half paid less than this amount.¹

The per cent of tax levy in the 268 towns and school tax units for which reports were made for 1912 ranged from 20 to 140 per cent of their grand lists. The median was about 65 per cent.¹

The per capita yield of the local tax levy in the several towns and taxing units for 1912, on the basis of the number of census children² between five and seventeen years inclusive, ranged from \$5.50 to \$83.91. The median local tax yield for school purposes was about \$16.¹

TOTAL RESOURCES FOR ELEMENTARY AND SECONDARY EDUCATION

For the fiscal year 1912 the amounts from the principal sources of operating revenue were:

¹ Details are given in Part III.

² The calculation is based on the school census rather than on the average daily attendance, because the latter, although a better basis, is made complicated and uncertain by pupils living in one town and attending school in another.

Local tax	\$1,296,564
State tax	165,080
Permanent School Fund	51,244
Special state aids	71,325
Miscellaneous, including tuitions, school lands, bequests, etc.	88,683
<i>Total</i>	<u>\$1,672,896</u>

Broadly speaking, out of every dollar available for the maintenance of the elementary and secondary schools, in the several town and school areas, 77.5 cents comes from local taxation; 10 cents from the state school tax; 3 cents from the permanent school fund; 4.2 cents from special aids granted by the state; and 5.3 cents from miscellaneous sources.

EXPENDITURES FOR ELEMENTARY AND SECONDARY SCHOOLS

A financial comparison between the public school system of 1892 and the school system of two decades later makes possible certain interesting and illuminating conclusions. The number of pupils enrolled in 1892 and 1912 was substantially the same, approximately 65,000. The average daily attendance increased during this period from 45,057¹ to 52,160, or nearly 16 per cent. The total expenditures for the maintenance of elementary and secondary schools during the fiscal year 1892 were reported as \$743,543, of which amount \$549,980, or about 74 per cent, went for teachers' salaries. In 1912 the expenditures for current expenses amounted to \$1,672,709, of which \$968,382, or about 58 per cent, went for teachers' salaries. To view the situation from another angle, while the total expenditures have increased about 125 per cent during the past twenty years, the amount expended for teachers' salaries has been raised only about 76 per cent. The average cost per pupil in daily attendance rose from \$16.50 in 1892 to nearly \$24 in 1912, an increase of nearly 50 per cent. During this time the potential resources, that is, the taxable property, increased about 30 per cent—the grand list of the state being \$1,600,000 for 1892² and \$2,193,091 for 1912.

DIRECT STATE SUPPORT AND EDUCATIONAL STANDARDS

A large number of comparisons similar in general character to those just made might be presented as indicative of the effort being put forth by the state and the towns to support the public schools. It is essential, however, not to obscure the remaining fact that the state needs yet to provide both for a greater equalization of the burden of school support among the communities of the state and for a further

¹ The average daily attendance for 1882 was reported as 47,772.

² Estimated on the number of polls, and the value of real and personal property as given in the Report of the Special Commission on Taxation of Vermont, 1908.

enlargement of the funds to be used for the elementary and secondary schools, if these schools are to be conducted on the high level requisite for the progressive welfare of the state. The urgencies of the educational situation revealed in the portions of this report dealing with the rural and the secondary schools are such that additional expenditures on the part of the state must be resolutely faced. It is not a question of how much Vermont is expending per capita. It is a question of developing a school system equal to the needs of its people.

The development of the state's school system during the past twenty years has already been greatly stimulated by direct state subsidies. The proportion of the total expense for the maintenance of the elementary and secondary schools borne directly by the state was considerably increased during the decade 1902-12. The increase of the state school tax from five per cent to eight per cent in 1900, the grants of state aid for transportation and board of pupils, for advanced instruction and for union supervision, and the establishment of the permanent public school fund are important items of this increased proportion.

In the granting of state aid to the lower schools two distinct ends are now generally recognized by American states: (1) to equalize the resources of local communities with which to meet definite educational needs, and (2) to stimulate local communities to further educational effort. Vermont's plan of apportioning state funds seeks to accomplish both of these ends.

The necessities of equalization are exhibited by the tables that have been cited, showing the varying amounts, among the different towns, of money raised per census child between the ages of five and seventeen and the varying percentages of the grand list raised for school purposes.

In 1912, 772 schools, or practically one-third of the entire number, had 15 pupils or less. With this condition, all calculations of expense based upon the pupil are unsound, even though showing a per capita cost that is equal to or above that of other towns or states. The principal item of school cost is the salary of the teacher. A normal expenditure per pupil in small schools means a low salary level for the teachers. This combination of many small schools with a high average cost per pupil explains Vermont's rank of fourteenth among the states of the Union in the average annual expense per child as compared with her rank of forty-third in the average annual salary of teachers.¹ It seems clear that the general standard of the elementary schools of the state will be raised only through an enlargement of the state's direct support of these smaller schools, coupled with an intelligent and expert educational oversight on the part of the state. The inauguration of an administrative system of efficient type will reduce certain expenses, but in the long run the state must spend more money to obtain a steadily improved system of schools. No other investment that the state can make will return so great a profit.

¹ See page 35.

PRINCIPLE UPON WHICH STATE SCHOOL FUNDS SHOULD BE DISTRIBUTED

The practice recently and most widely followed in the distribution of state funds to local communities has had in view solely the justice of the distribution, and has therefore based its award upon the school census or upon some form of school attendance. The plan at present in operation in Vermont makes its major grant depend simply on the number of legal schools, without regard to their size, or efficiency, or the wealth of the community that maintains them. Both of these plans are characteristic of the period when the state confided everything in education to the varying discretion of the towns, a period when the state itself had no definite educational policy. This has changed; the state has become educationally conscious, intelligent, and ambitious. The recommendations of this report contemplate for Vermont a strong, well-centralized and efficient state control in education. It is obvious that with the introduction of such educational leadership the power of state funds must be put behind the policies to be inaugurated. Hereafter money should no longer be granted on a per capita, or per school, or other merely numerical basis. State aid, when administered by the advice of an informed and vigorous central authority, should invariably be granted in such a manner as to stimulate and reward local effort which is harmonious with state policies. Hence in Vermont, what assistance the state can give should go for better trained and better paid rural school teachers, for better buildings, for persistent and careful consolidation, and for the revision of the curriculum in the interests of domestic science, manual training, and agriculture. Details of such measures must, of course, rest with the educational officers themselves to elaborate; it is sufficient at this point to urge that the chief tool for realizing their success should be made as responsive as possible to their designs.

It is not possible without a more intensive study of the separate towns and communities to outline a statement of a permanent financial policy for the future as between state support and local support of elementary and secondary schools. Such a policy must be worked out gradually by the board of education as the reorganization of the school system proceeds. State support, like all other outside support offered to a community, has its dangers no less than its advantages. It would be a serious misfortune to lift the entire burden of school support from the community. It is a question of judgment as to how far a state can go in helping local schools in justice to its other obligations, and how far such aid stimulates instead of weakening local sense of responsibility.

In another section attention is called to the present somewhat loose methods of accounting and paying school bills, including the payment of teachers' salaries. So long as collections and payments depend upon two distinct sources,—state and local,—it is not easy to introduce a uniform, simple, and prompt method of accounting and payment. But the solution of this question and the still more pressing one of better salaries for teachers can be worked out only by the coöperation of the state

supervising agency with the town authorities. With the stimulus of state aid and of state supervision, it will be entirely possible to bring state and local authorities to a uniform practice.

IX

THE REORGANIZATION OF THE AGENCIES FOR ADMINISTRATION

A study of the chief historical stages in the educational evolution of the state for the past one hundred years furnishes justification for the statement that Vermont has never completely assumed a definite constructive responsibility for the progressive development of the public school system; has never clearly regarded this system as an institution and instrumentality of the commonwealth. This may be accounted as a natural result of a combination of influences. Among these are the sturdiness and independence of local communities under the characteristic New England scheme of government, the comparative isolation of the several principal geographic sections of the state from one another, and the absence of any dominating city centres of population.

This absence of a positive state policy explains in large measure the lack of a proper state machinery for the administration, supervision, and inspection of the common schools and other public educational institutions.

The establishment of the first State Board of Commissioners for Common Schools in 1827 and its abolition in 1833; the creation of the office of State Superintendent of Common Schools in 1845; the refusal of the General Assembly to appoint a State Superintendent in 1851 and the resulting absence of any state supervision for the following five years; the creation of a State Board of Education in 1856, which continued until 1874, when the office of the State Superintendent was reestablished; the creation of another State Board of Education in 1908 as the successor of a Board of Normal School Commissioners created in 1898; and the passage by the legislature of 1912-13 of the act creating the present State Board of Education with its partial and ambiguous authority over the several parts of the educational system,—make clear the lack of a well-planned, continuous educational policy.

A casual examination of the general scheme of the state's government of the system of education, and of the constitution and powers and duties of the several boards and officers composing this educational government, reveals immediately a situation favorable to discontinuity of organization and to waste in operation.

A marked general tendency of the past two decades has been the development throughout our American states of the type of school government whereby an increasing authority and responsibility are centred in state boards and officers. This tendency is undoubtedly a consequence of the wider recognition of the fundamental social policy that public education, in order to provide an equitable distribution of educational opportunities, must be assumed by the state rather than by local governmental units,—district, town, county, and city. The recognition of this larger state responsibility results in the exercise of a large amount of control directly by the state. This trend whereby the influence of the state in education is enlarged and vitalized is

customarily expressed by the phrase, "centralization of state control." The first and most evident result of this centralizing movement has been the erection of a new form of state machinery for the oversight of public educational activities, especially as regards elementary, secondary, special, and supplementary schools. This organization is not intended to take away the rights of local communities to govern their own schools, nor to weaken their responsibility for school support. It aims simply to provide, along with moderate financial aid, a system of scrutiny and supervision that shall make for a wider school opportunity, more uniform conditions, and freedom from some of the more objectionable local limitations. The state is the only agency that can undertake this function.

The former widely adopted plan of placing the common school system of the state under the general direction of a Superintendent of Public Instruction, elected by popular vote or chosen by the legislature, is being replaced by a plan that assigns the public school organization of the state to the general control of a small board or commission appointed by the governor, with or without legislative confirmation. Such a board or commission is usually designated as "The State Board of Education." Recent examples of such boards, newly constituted or reorganized, are to be found in Massachusetts, Pennsylvania, Oklahoma, Idaho, New Jersey, and elsewhere. The modern state board of education embodies the fundamental governmental principle of the immediate suzerainty of the state over the public school. As to the essential constitution and internal organization of the centralized state board of education, the following general principle is now accepted: It is a representative board of laymen, few in number, receiving no compensation, appointed and constituted in a manner providing for responsibility of performance and securing continuity of state educational policy.

The State Board of Education is the active deputy of the people of the whole state. It is therefore composed of laymen rather than of those professionally engaged in the educational service, or of those officially connected with other branches of state government. Such a board will have in its membership no representatives of particular educational institutions or other special interests. Neither will it have any *ex-officio* members.

On the basis of the best American administrative experience, in education as well as in other governmental departments, it has come to be generally agreed that this board should consist of few members. A board of five is perhaps sufficiently large and representative. No compensation is paid for service, other than reimbursement for necessary traveling or other expenses. The members of this state board are appointed by the governor of the state for fairly long overlapping terms, and in a way that brings about the expiration of the term of but one member each year. Thus, if the board is composed of five members, one member will be appointed each year for a term of five years. Appointments directly by the governor fix responsibility. The fairly long overlapping term of office contributes to the development of a consistent and progressive

school policy. All appointments should be made solely with reference to ability to serve the larger interests of the entire people of the state. Neither residence, party affiliation, incidental or temporary prominence, religion, race, sex, or specific occupation should be determining qualifications. Such a board will embody the best and highest form of disinterested personal service. Membership will be considered by the people of the state as evidence of conspicuous capacity for civic usefulness. As a safeguard for the character of the board and for the continued effectiveness of its performances, the members should be subject to removal by the governor, either with or without legislative concurrence, for gross immorality, malfeasance in office, incompetency, or neglect of responsibility.

Thus organized, the State Board of Education will fulfil its responsibility to the educational system of the state, working in accordance with the following general principles:

Subject to the general provisions of law, there will be delegated to the board the care and oversight of the entire public school system of the state. The actual administration, supervision, and inspection will be entrusted to executive officers selected by the board.¹

The Board of Education should not itself, individually or collectively through committees of its members, attempt to perform executive functions. Within the defined statutory limits it should aim to provide ways and means to carry out the public educational policy determined by the legislature. The actual execution of these policies belongs to the expert trained officers of the board, in particular the commissioner of education, the chief of these officers, with whom first responsibility rests. In addition to this chief executive officer there ought to be a sufficient number of assistant commissioners, supervisors, and inspectors properly to care for the state's share of responsibility for the conduct and development of the schools. The selection of these executive officers represents the most important function of this board.

The commissioner should be a man of such breadth of education, of such special training, of such varied educational experience, and with such a record of successful performance, as will entitle him to be entrusted with the important responsibilities of the board. He should be selected without reference to his residence within the state, should be given an indefinite term of office, and should be subject to dismissal only upon a two-thirds vote of the entire membership of the board. There should be attached to the office a salary to be determined by the board, of sufficient size to attract

¹ The question whether such a board should exercise control of the higher educational institutions of the state is one that is not here taken up. Such control might be so exercised as to interfere with the free development of colleges and universities. On the other hand, the rivalries and wasteful duplications of educational effort, with the attending political complications which come from the lack of such uniform administrations, are notorious, and cannot in the long run fail to bring upon these institutions unpleasant consequences. The state of Idaho is just entering upon such an administration of its whole system of public education. The commissioner of education, under the State Board, is the head of the whole system of schools, including the State University. In the case of the state of Vermont the absence of any state institution of higher learning simplifies its problem of educational administration. The State Agricultural College, supported by funds furnished the state by the general government, has been placed by the state under the control of a board organized as described in another section.

and retain a skilful and successful man. The new state of Idaho, with a population smaller than that of Vermont scattered over an area nine times as large, pays its commissioner of education \$6000.

The success of the educational administration will depend no less on the personnel of the board than on the abilities of the chief executive officer. Hitherto American governmental boards have not reached a high order of efficiency. We are now developing in larger numbers the type of man adapted for the duties of trustee membership,—a man who, while not an educational expert, has an intelligent interest in education, and is ready to give time and thought to the problems of the board and to bring to the aid of the executive officers a sound judgment and a mind keenly interested. The members of such boards have generally tended to fall into one of two errors,—either to become dummy directors, leaving the entire responsibility with the executive, or else to go to the other extreme and desire to become themselves executives. The business of such a board is to govern, not to administer. To fill such a place on a board of education is to render to the state service of the highest order.

Acting through its officers, the Board of Education ought to have general control of the entire educational system of the state. This will include not alone the elementary and secondary schools, vocational schools, and any school established for the training of teachers, but also schools for the training of special classes, the educational departments of charitable and penal institutions, and all supplementary educational activities, including those relating to libraries, which are properly a part of the state educational system.

Such oversight will involve the estimation and preparation of a budget for educational expenses, the enforcement of laws relating to schools and other institutions of learning, the classification and unification of the public schools, the establishment of uniform records and reports, the determination of the qualifications of teachers and their certification for the elementary, secondary, and special schools, and the recognition of certificates and diplomas from other states. The board should, as the supervisor of the expenditure of all state money for educational purposes, inspect all institutions and report upon their use of such funds.

The board in coöperation with the state board of health should establish standards for the construction, arrangement, and sanitary equipment of school buildings and school sites; and should direct the medical inspection and study of public health as far as the schools are concerned. Such a program ought to include also a systematic effort to inform the people of the whole state as to the opportunities of their own schools. A serious defect of the present situation lies in the fact that it is not easy for the average parent to obtain disinterested educational advice concerning his children, or unprejudiced information concerning the nearby agencies of education.

The necessity for such a board has already been fully realized by those who have given serious thought to the educational problems of the state. The creation of the existing board of education came as a result of this conviction, and its creation was

a long step in the direction of better organization and a clearer differentiation of duties. The existing board is defective, however, particularly in the restricted authority that is given to it and in its ambiguous relation to the superintendent of education. Its reorganization in accordance with the following recommendations would be the necessary initial step for the establishment of a state system of education adapted to the needs of all the people of the state. A rightly constituted board with competent experts will step by step revise the curriculum of the elementary and secondary schools, provide facilities for the training of teachers, and meet the other problems of state education as they arise.

It is recommended, therefore, that the existing state board of education be reorganized so as to provide for a board of five members to be appointed by the governor, one member to be appointed each year for a term of five years; that this board have general control of the entire educational system of the state; that the powers and duties now belonging to the present Board of Education, to the Trustees of the Permanent School Fund, to the Trustees of the State Schools of Agriculture, to the Board of Trustees of the State School for Feeble Minded, to the Commissioner of the Deaf, Blind, Idiotic, Feeble-Minded Children of Indigent Parents, and the State Board of Penal Institutions, in so far as the Industrial School is concerned, be transferred to this board; that the chief executive officer of the board be a commissioner of education to be chosen by the board under such conditions and at such compensation as shall guarantee the service of a progressive educational leader; that provision be made for the appointment of not less than four directors or deputy commissioners,—one for rural schools, one for secondary schools, one for vocational schools (including agriculture), and one for extension activities. In addition there should be provided in the appropriation for the state board of education a sum of money to cover the expenses of the board, the pay of assistants and of clerks in the office of the commissioner of education, and the necessary traveling expenses. Owing to the impossibility of correctly estimating all of these items in advance, it would be of great advantage, and ultimately in the direction of economy and efficiency, if in addition to the sums set aside for the salaries of the commissioner and his deputies a lump sum were for the first two years placed at the disposal of the board, to be accounted for subsequently in the form of an itemized budget.

THE VERMONT COLLEGES AND THEIR RELATIONS TO THE STATE

THE higher institutions of Vermont have been studied systematically by the officers of the Foundation for some years. To supplement the knowledge thus gained, each of the institutions was visited by several members of the enquiry staff, and all of the printed and other records relating to their work were carefully examined.

There are in Vermont four chartered colleges of higher education—the University of Vermont, Middlebury College, Norwich University, and St. Michael's Roman Catholic College at Burlington. The first three receive state subsidies; the last has not hitherto shared in the state's bounty.

The descriptions of the University of Vermont, Middlebury College, and Norwich University that follow are necessarily founded upon the study of certain characteristics that go to make up institutions of learning. It is not possible to separate our complex institutions of higher education into sharply defined classes. It is not possible to analyze and compare those indefinable moral and intellectual qualities that make up the atmosphere of a school. No scrutiny could differentiate the devotion and the skill of a teacher in one institution from that of a teacher in another institution. In a very real sense it is impossible to compare institutions in their intellectual and spiritual life.

On the other hand, there are certain definite marks of sincere and efficient college work upon which the student of education may safely lay his hand and use as a means of comparison. For example, an institution that enforces its entrance requirements loosely and carelessly is not likely to do college work of a high order. The retention in the college body of a considerable proportion of unfit students means a sacrifice of the interests of the larger body of the well prepared. It is not possible to teach certain subjects like chemistry or physics or biology without laboratory equipment. It may be fairly assumed that a college faculty can be gauged in some degree from the extent and breadth of their preparation for their work. The skill and ability with which the facilities of libraries and laboratories and of lecture rooms are used are all definite factors that go to make up the ability of a college to do its work, and all of these things may be estimated fairly accurately by an experienced student of education, and compared with a fair standard of college work as determined by the experience of institutions throughout the whole country. In a very real sense the income of an institution is a just measure of its ability. This does not mean that an institution with a small income may not be quite as good in its own field as an institution of larger income, but it is perfectly clear that the institution which with a small income attempts to spread its instruction over the whole field of education must be far less efficient than the institution that devotes its resources conscientiously and intelligently to a definite field of instruction.

The descriptions of the three institutions under consideration, therefore, deal in the main with these tangible evidences of college administration and college work.

These institutions have much in common in so far as the atmosphere of the college life is concerned, the characteristics of the students, and their attitude toward study. In all three institutions there are strong tendencies toward earnest work, in all three a large proportion of the students are young people who come from families of modest means, in all a considerable number of the students earn at least a part of the expense of college tuition.

The atmosphere of the student life in each of the three institutions is earnest. The chief differences that arise grow out of the differences in the location and resources of the institutions. In the matter of location the University of Vermont has a great advantage. Burlington is an admirable place for the development of a strong college or a university of modest scope. Nowhere else in the state can a student obtain so many outside sources of improvement and cultivation as here. What the student gains at Middlebury or at Norwich in intellectual or in social improvement must come from the institutions themselves, and whatever may be the advantages of the concentration attained in a small and isolated town, the difficulties of retaining teachers in such a situation, removed as they are from facilities for their own study, must always present problems and place limitations upon the work of these institutions. If Vermont is to have several institutions of learning, it is perhaps on the whole fortunate that they should present contrasting types. There are forms of instruction and there are students for whom the small village is best suited. The desirable thing is that each institution should devote itself to those fields of instruction that are best suited to its own environment. A differentiation of work, an independent effort to deal with the educational problems, is the essential thing at present.

A notable circumstance in the attendance of these colleges arises out of the fact that so large a proportion of the students come from other states. In 1912-13, at the University of Vermont, 62 per cent of the students were from Vermont; at Middlebury, 47 per cent; at Norwich, 42 per cent. Of 1026 students attending the three institutions nearly one-half were from other states. In the medical school only 32 per cent were Vermonters.

The University of Vermont was chartered in 1791, Middlebury College in 1800, and Norwich University in 1834. In chartering these institutions the state of Vermont assumed certain powers over them, and for a number of years it has been appropriating to each sums of money. The relations that exist between the state and these institutions are somewhat anomalous, corresponding neither to the position of the ordinary New England college supported out of endowment, nor to the state university supported and governed entirely by the state. The nature of the relation in each institution is briefly described below.

In the original charter of the University of Vermont it is provided that the trustees, when required by the legislature of the state, shall lay before that body a state-

ment of "all appropriations by them made and the by-laws, rules and regulations for the government of said institution for their examination, approbation, and revision." The control here given to the state is both negative and affirmative. The power of "examination, approbation, and revision" concerning the by-laws, rules, and regulations is an academic right that the legislature is scarcely likely to exercise, but such a power over all appropriations is a control that would seem almost unlimited if the legislature decided to exercise it. By an Act of November 6, 1865, the University of Vermont as created by an Act of November 3, 1791, was with its consent merged into a new corporation entitled "The University of Vermont and State Agricultural College," to which new corporation was transferred all of the property of the former University of Vermont, and to which was granted the income accruing from the proceeds of the sale of the land granted to the state of Vermont by the government of the United States under the Act of July 2, 1862. The corporation thus created is the one existing to-day. It is composed of twenty trustees, nine of whom were elected in the first instance by the trustees of the original University of Vermont, vacancies in this number of nine trustees being filled by their survivors. Nine trustees are elected by the legislature of Vermont for definite terms. The governor of Vermont is an *ex-officio* member, and the president of the University of Vermont and State Agricultural College, who is elected by the other nineteen trustees, is also an *ex-officio* member. This corporation, owning absolutely the property of the educational institution known as the University of Vermont and State Agricultural College, is thus technically a corporation controlled by the state, since of the twenty trustees ten are state officials and the twentieth trustee is elected by the body of nineteen in which the state appointees are in the majority. This technical control, however, is very different from that which is exercised over the representative state universities. In them the institution is controlled by a board of regents, all of whose members are either appointed by the governor (in 31 states), or elected (in 8 states) by the people, the legislature, or the state board of education. Under the conditions that now exist, the actual control of the University of Vermont is admittedly and will always remain in the hands of self-perpetuating trustees.

Middlebury College, although chartered after the University of Vermont, was the first to begin instruction. Its charter entrusts to the president and fellows the "government, care and management of the college," and provides that "all laws, rules and ordinances for the instruction and education of students and ordering, governing, ruling and managing the said college shall be laid before the legislature of this state as often as required and may also be repealed or disallowed by the said legislature when they think proper." While the state of Vermont, therefore, does not appoint the trustees of Middlebury, it has a measure of control over the college, consisting of a veto power over general college regulations. Thus, for example, the fixing of a general rate of tuition for all students, or the appropriation of a fixed ratio of the college income for specific purposes, would appear to be within the power of the legislature.

Being, however, solely a negative control, this power has never in the past been exercised, and it would be difficult to exercise it in the future in such a way as to form any actual working control. While, therefore, the charter of Middlebury College gives to the legislature a certain veto power with regard to the college regulations, this power is negligible as a practical matter of administration.

The charter of Norwich University goes somewhat further in the direction of state supervision than the charter of Middlebury College, but not so far as that of the University of Vermont. It is provided in the charter of Norwich University, like that of the University of Vermont, that the college "laws, rules and regulations shall be laid before the legislature of this state whenever required by that body and may by them be disallowed, altered or repealed." On November 16, 1898, an act was approved by the legislature which provides for still further supervision on the part of the state, through a board of visitors, made up of the superintendent of education of Vermont *ex officio* and four other visitors appointed biennially by the governor of Vermont by and with the advice and consent of the senate. The duties of the board of visitors were defined to be "to visit and inspect said university at such times as they see fit and to report the result of such inspection and the manner of the expenditure of the money herein appropriated to the Governor." The legislature further enacted on November 29, 1898, a statute to the effect that "Norwich University is hereby recognized as the military college of the state of Vermont and its faculty are hereby given local rank as follows: assistant professors the rank of second lieutenant," etc. While the legislature thus declared Norwich University to be the military college of the state of Vermont, this declaration added nothing to the slight and unexercised powers of educational supervision contained in the charter, so that the status of Norwich University since that act is that of an institution whose property is controlled entirely by its own self-perpetuating board of trustees, with an ill-defined recognition on the part of the state as its military college, subject to a perfunctory state inspection of the expenditure of state moneys.

This brief statement of the legal relations of the three colleges to the state of Vermont makes clear the fact that none of them is a state institution in the strict and complete or even in the ordinary sense of that term. Each is practically governed by its own board, and such measure of state control as has been given by amendments of the original charter or by new acts has looked in the direction of establishing just enough control to justify appropriations. While the University of Vermont has a slight, technical majority of state representatives upon its board of trustees, the fact still remains that in the practical working of administration all three institutions have been governed and will continue to be governed by boards whose authority is practically directed by self-perpetuating trustees. While the state has the right, through the legislature, to assume a larger measure of control over any one of the institutions, the method of doing this under the present charters and acts would be

so cumbersome and difficult that the possession of this power is rather the shadow of control than control itself.

The three institutions stand to-day upon practically a common basis so far as state control is concerned. The question that really faces those charged with the state government is not what measure of control the state may exercise under these somewhat ambiguous measures, but rather what work in higher education the state ought to support, if any; and if it ought to support such work, in what institutions may it be conducted to the best advantage of all of the people of the state?

XI

THE UNIVERSITY OF VERMONT

THE University of Vermont, chartered in 1791, has its seat in the city of Burlington, the largest city in the state and in many ways the one best suited for a university town. Burlington is the chief port on Lake Champlain, and the general character of the surrounding country attracts many summer residents. The university itself stands upon a plateau some three hundred feet above the lake, in the highest part of the city.

In 1865 the State Agricultural College was combined with the university under the title of the University of Vermont and State Agricultural College, each institution continuing nine of its trustees, the legislature electing those of the agricultural college for six-year terms, those of the university being self-perpetuating. The president, who is an *ex-officio* member, has no vote. The constitution of this board has been referred to in a previous paragraph. The combined board is required under the law to make an annual report to the legislature, although this is a formality that is not observed. The legislature may also appoint a board of visitors, a right of which the state does not avail itself. The present board includes the governor of Massachusetts, who is an alumnus, and three other members from outside the state. The trustees meet twice a year, once at Commencement and once in October. The executive committee, consisting of members near Burlington, represents the university and college of agriculture members equally and meets once a month. The finance committee, all being university members, is composed of two Burlington men, a well-known New York alumnus, and the treasurer, who is not a member of the board. The actual proceedings of the board are but slightly affected by the participation of state-appointed trustees.

The college buildings represent variations in structure corresponding to their age. The old college, known as "The Old Mill," valued at \$100,000, was built in 1801. It was rebuilt in 1825, when Lafayette laid the corner-stone. It provides at present old and rather inadequate dormitories, lecture rooms, offices, and a chapel. The library, the gift of Frederick Billings, an alumnus, in 1885, cost \$175,000, and was the last work of H. H. Richardson. A red brick building, the Williams Science Hall, the gift of Dr. Edward H. Williams, cost \$250,000, and is an adequate, fire-proof laboratory building. The mechanical engineering buildings, erected in 1891 at a cost of \$25,000, are suited to their purpose, but small and crowded. Converse Hall, of marble, was erected in 1891 from a gift of \$150,000 by John H. Converse of the class of 1861, and is a good, well-kept men's dormitory, but inconveniently distant from the other buildings. The gymnasium and drill hall, built in 1901 at a cost of \$40,000, is large and fairly equipped. The red brick and terra-cotta medical building, costing \$150,000 and built in 1903, is a good modern structure. Morrill Hall, provided by the state in 1904 and completed in 1907 at a cost of \$60,000, offers fair facilities for the work of the Experiment Station. Small, but good greenhouses, costing \$5000, are near by.

Grassmount, the dignified mansion of Governor Van Ness, is used as a residence for women, some of whom are also housed in Howard Hall, the former home of General O. O. Howard. There is a commodious president's house and a temporary commons for men. The United States Weather Bureau erected an observatory adjoining the campus in 1906.

The endowment approximates \$1,000,000, half of which has been acquired in the last six years. A field secretary of the alumni continues to work for endowment.

The income of the university, not including the Experiment Station, for 1912-13 was:

From students	\$73,570.73
State endowment (1862 land)	8,130.00
Other endowment	38,427.87
State appropriation	26,000.00
United States appropriation	50,000.00
Miscellaneous	12,433.37
<i>Total</i>	<u>\$208,561.97</u>

The expenditure for the same year was:

For equipment	\$12,390.90
Administration	32,291.44
Current expense	39,682.43
Instruction	109,488.69
Library	
Books	\$2,755.04
Service	3,342.64
<i>Total</i>	<u>\$6,097.68</u> <u>\$199,951.14</u>

All of the thirty state scholarships of \$80 each were awarded during the year. There are also ninety university scholarships and a scholarship fund. Until recently agricultural students from Vermont paid no tuition. They now have free tuition up to \$80. The total cost to the student ranges for men from \$275 to \$475 a year; for women from \$340 to \$400, as follows:

	<i>Men</i>		<i>Women</i>	
Tuition, Agr., Arts, Eng.	\$110.00	Med. \$125.00	\$110.00	\$110.00
Room	15.00	to 75.00	{	180.00 to 200.00
Board	108.00	to 190.00		
Fees	12.50	to 40.00		
Miscellaneous	30.00	to 55.00	10.50	to 38.00
			30.00	to 50.00

The university includes the following departments:

1. An undergraduate College of Arts and Sciences, of which the Department of Education is a part;
2. The College of Engineering;

3. The College of Agriculture;

4. The College of Medicine.

There is in addition a course in Military Science and Tactics, but the instruction in this department forms a portion of the courses offered in all undergraduate courses.

The university will be best described by dealing with these four principal divisions separately.

The matter of entrance requirements is one that may be spoken of as a preliminary to such differentiation, inasmuch as the entrance requirements for all of these divisions, except for the medical school, are the same, and include practically the completion of a full four-year high school course.

In making this study the certificates of all students admitted to the university in the years 1909, 1910, 1911, and 1912 were carefully checked, and were found complete and accurate. The record of conditions and their removal at the end of the first year is carefully looked after. The university has been a member of the New England College Examination Board since 1907-08, students being examined in all subjects in which they are not certified according to the high standards of this board. While this reduces to some extent the attendance in the university, there can be no question that the relation has brought about a great improvement in the student body, and that the effect of this well-administered standard upon the secondary schools of the state has been of enormous advantage. The administration of the entrance requirements has been fair and strict.

The requirements for promotion and graduation are likewise well administered. The class of 1913 in arts, agriculture, and engineering entered 120 in 1909. Eighty-two withdrew and thirteen were added during the course, leaving a graduating class of fifty-one. Of those who entered with advanced standing, five had left the university and returned; six came from other well-known institutions; two entered from other classes. Of those who withdrew, half were conditioned, one-fourth were dropped by the university, and one-fourth lacked the money to continue. With the exception that the degree of master of arts is conferred for non-resident work, the requirements for degrees are excellent.

The faculty of the College of Arts and Sciences and of the Engineering School forming the great bulk of those engaged in university teaching, shows the presence of men trained in many different parts of the country, although in the engineering faculty there is a large proportion of local graduates.¹ The entire faculty includes forty professors, fifteen associate and assistant professors, nine special professors, and thirty-six instructors and assistants. Of this number, however, nine professors, five associate and assistant professors, twenty-one instructors and assistants, and the nine special professors—in all forty-four out of one hundred—are members of the faculty of the medical school.

¹ The proportion of University of Vermont graduates in the faculties is one-tenth in agriculture, one-fourth in arts and sciences, one-half in engineering, and three-fourths in medicine.

The total salary expenditure is as follows for the year 1912-13:

Arts and Sciences	\$70,669.34
Engineering	14,978.33
Agriculture	4,377.00
Medicine	26,928.34
Experiment Station	18,396.82
Administration	17,579.17

The salaries, as university salaries go, are low; and in agriculture and in medicine many of the salaries are nominal, professors of agriculture receiving the greater part of their salaries from the Experiment Station and professors of medicine serving without salary.

The student body of the university, with the exception of the medical school, is mainly drawn from Vermont, and the various parts of the state have been well represented. The following table gives the attendance for five-year periods:

	1902-3	1907-8	1912-13
Total	508	497	559
From Vermont	340	348	350
Proportion from Vermont	67%	69%	62%
Proportion from Vermont in Medical School	43%	53%	32%
Proportion from Vermont excluding Medical School	82%	74%	61%

Women were first admitted to the university in 1871, the year of President Buckingham's inauguration. The first year there was one woman. In 1881 there were 8; in 1891, 30; in 1901, 44; in 1911, 75; and in 1912, 98. The women have been admitted to class relationships, and a large proportion have won Phi Beta Kappa recognition. In 1895 the university acquired Grassmount, the former residence of Governor Van Ness, as a home for women students, and in 1910 a dean of women was appointed. In 1911 Howard Hall, an additional dormitory, was purchased, and a third house was rented in 1912 for similar purposes. Half of the women students live in these houses. The remainder live either at home or with approved families. Four-fifths of the women students are from Vermont, and they deserve a more cordial welcome and recognition on the part of the university than they seem to have received. The further acquisition of converted residences for their housing will be inadequate and expensive, and the next step should be an adequate dormitory.

Approximately 60 per cent of the whole student body live in dormitories or fraternity houses. The remainder live in lodgings—the men where they like, the women in approved houses. About one hundred students take their meals in the commons and a considerable portion eat at fraternity houses, of which five are owned and six are rented by the chapters. Ten fraternity houses provide lodgings; four provide board. The houses that are owned cost from \$10,000 to \$25,000 each. The three women's

societies rent rooms. Additional dormitories for both men and women and an adequate commons are urgently needed.

Athletic interests are managed by a committee of five faculty members, one senior, one junior, and an alumnus. Military drill and instruction are required of all students, except medical students, for three hours a week for two years. This is at present admirably administered by a most competent and faithful officer detailed by the United States Army.

In general, the location, equipment, endowment, instructing staff, and student body of the University of Vermont represent a dignified and honorable American institution of learning. It deserves, and undoubtedly will receive, the generous support of its alumni, of whom many occupy positions of honor and responsibility. Of the 333 graduates of the university between 1891 and 1900, not including those of the medical department, 106 are teachers (33 per cent), 76 engineers (23 per cent), 55 business men (17 per cent), 31 lawyers (10 per cent), 27 physicians (9 per cent), 14 clergymen (4 per cent), 11 agriculturists (4 per cent). Taking into account the presence of a college of agriculture, the small number of graduates engaged in practical agriculture is noticeable.

THE COLLEGE OF ARTS AND SCIENCES

The College of Arts and Sciences offers the ordinary courses pursued in the American college. Students in arts may pursue one of two curricula of required and elective studies. English, mathematics, hygiene, and declamation are required of all students during the freshman year; and military science of all students through the freshman and sophomore years. The elective studies begin with the sophomore year and are administered according to the group system. In science the curricula likewise consist of required and elective studies, English, mathematics, modern languages, and declamation being required of all students through the sophomore and freshman years. The degrees that are conferred in these curricula are: bachelor of arts in the classical curriculum, in which Greek and Latin are required; bachelor of philosophy in the literary scientific curriculum, in which Latin is required. A curriculum in commerce and economics, made up from courses in the College of Arts and Sciences, and leading to the degree of bachelor of science in commerce is also offered. There is also a curriculum in home economics, made up in part of courses in English, philosophy, mathematics, and science, together with certain courses in home economics; and for the completion of this curriculum the degree of bachelor of science in home economics is granted. The Department of Education, which forms a part of the College of Arts and Sciences, was opened in 1908, shortly after the passage of the Nelson amendment, which enabled land grant colleges to spend a portion of their funds on the training of teachers of agriculture and mechanic arts. There were twenty-eight students taking courses in education in 1909-10 and forty-two for the year 1912-13. Six took their major work in edu-

cation in 1911-12 and two in 1912-13. There is a departmental library for the use of the department of education, but the opportunity for practice-teaching is absent. Students are admitted to the course in education who have completed the first two years in any department of the university, and the instruction that looks more directly toward preparation for teaching consists of psychology, principles of instruction, and the history of education. In the absence, however, of practice opportunities, there has been no reason to wonder at the fact that the course has as yet appealed to few students. Its work, so far as the training for teaching is concerned, is as yet theoretical.

The strength of the College of Arts and Sciences lies still, as it has for so many years, in the general college courses that are offered, in which students obtain a grounding in those cultural subjects that make for intellectual training and spiritual development. The offering of courses throughout the undergraduate departments of the university is a fair and honest one, although, as in the case of nearly all colleges, these courses have been expanded, at least by title, to meet wants that apparently are not yet felt. Of the 237 courses announced in the catalogue for 1912-13, exclusive of medicine, 186 (or 78 per cent) were actually given. Of these, 65 courses were for the 109 students in engineering and 31 courses for the 79 students in agriculture, showing an amount of expansion larger, perhaps, than is yet needed. Such an expanded offering leads, as in institutions elsewhere, to a very large number of small classes. Of the 271 classes held in 1912-13, 37 per cent had from 1 to 9 students, 32 per cent had from 10 to 19, 19 per cent had from 20 to 39, and 12 per cent had over 40. Thus, more than two-thirds of the courses were below what may be called the point of economic efficiency.

THE COLLEGE OF ENGINEERING

The College of Engineering offers three curricula of study, each covering four years: one in civil engineering, one in mechanical engineering, and one in electrical engineering. The schedule of studies follows quite closely the schedule of engineering courses common among the better schools of the country, including the basis of the physical sciences for the first two years, followed by applications during the last two years. The faculty of the school of engineering is small in numbers for the work which it undertakes to do, but the instruction is earnest and sincere, and the laboratory facilities are on the whole fair. The department is in serious need of better quarters; the present ones are small, inadequate, and inconvenient. In the character of the instruction and the opportunity for laboratory work the school compares well with similar schools of engineering in other institutions. In order to do its best by the students who come to it, it still needs additional instructors. The pay of the professors is very small in comparison with that paid by the better engineering schools, and in no way comparable with that which the men so trained can obtain in the practice of their professions.

THE STATE AGRICULTURAL COLLEGE

The Vermont State Agricultural College is the result of the Act of Congress of July 2, 1862, usually named after its author, Justin S. Morrill, for over thirty-five years a congressman and United States senator from Vermont. By the "Morrill Act" Vermont received 30,000 acres of the public land for each of the senators and each of the three representatives to which it was then entitled. The state sold this land for a little over ninety cents an acre, and in 1863 attempted to unite the University of Vermont, Middlebury College, and Norwich University, or any two of them, into a single institution, to which should be joined a college of agriculture supported by the interest on the \$135,500 derived from the sale of the federal land grant. This attempt to unite the Vermont colleges having failed, the legislature, in 1864, made a provisional organization of a "Vermont Agricultural College," the actual existence of the college to be dependent upon the subscription by citizens of Vermont of sufficient funds to supplement the income of the federal grant. As subscriptions were not forthcoming and the legislature was apparently not ready to appropriate money from the state treasury to agricultural education, the alternative was adopted of establishing a state college of agriculture at the University of Vermont. By an act approved November 6, 1865, a new corporation was formed, entitled "The University of Vermont and State Agricultural College," governed by a board of trustees consisting of the governor of Vermont, the president of the university, nine legislative and nine self-perpetuating trustees, as already described. To this corporation has been given the income derived from the Act of 1862 and the annual grants from the United States government authorized by subsequent legislation. This annual income, including that for the Experiment Station, now amounts to \$88,000.

The College of Agriculture is thus a correlative part of the University of Vermont, with its own faculty and a dean, who is also director of the Experiment Station. The faculty consists of eight professors, three instructors, and one non-resident lecturer. Professors are paid from \$1800 to \$2500, instructors about \$1200. The list of students, which for many years numbered fewer than 50 annually, has increased in recent years, and in 1912-13 stood at 79. For half a dozen years the entrance requirements have been high school graduation, strictly enforced. There is also a special winter course intended for the benefit of those engaged in farming, on which the attendance in 1912-13 was 24.

The equipment consists of Morrill Hall, erected in 1907 from a state appropriation of \$60,000; the laboratories in general chemistry and biology in the buildings devoted to the arts and sciences; a small building, with three greenhouses attached, for botany; and a college farm. The laboratories in Morrill Hall, which are used by the Experiment Station, are fairly adequate for the purpose, and are in constant and intelligent use. On the other hand, the laboratory equipment for teaching students is meagre, and what there is of it is not fully utilized. Most of the teaching is didac-

tic. The college farm is used by the staff of the Experiment Station for their experiments, but as far as the uses of the College of Agriculture go, it might as well not exist. The late superintendent, as a member both of the board of trustees of the university and of the board of control of the Experiment Station, was in entire charge of the farm. He thus directed the dean-director of the College and Experiment Station instead of being directed by him. Professors cannot use the farm as an aid in teaching, students are never seen upon its premises, and the college farm barns, instead of being a model for well-kept establishments, would probably be condemned as unsanitary by any modern board of health.

The general plan of the professional curricula in agriculture given at the State Agricultural College is similar to that in many other agricultural colleges. It consists of required work during the first two years, and suggests groups of electives for the last two years. Three general lines of instruction are indicated: (1) agronomy and horticulture, (2) animal husbandry and dairying, (3) the teaching of agriculture.

The curriculum thus offered is intended for men who are prepared to take a college education and to become professional men in agriculture. It has, however, even from this point of view, very great educational weaknesses. Thus, the student is given a full course in chemistry in the freshman year, and in the sophomore year a full course in botany with a somewhat shorter course in zoölogy. These courses are for the purpose of providing him with a solid scientific foundation upon which can be erected a superstructure of scientific agriculture, but the superstructure afterwards erected is not scientific, but empirical. It could be given almost as well without the burden of these preliminary scientific courses as with them. The important subject of agronomy is restricted to a single half-year elective course given by an instructor; the work in horticulture is but slightly related to the preceding biological foundations; the animal husbandry, given in the junior year, although preceded by zoölogy, is admitted to be as frankly empirical as similar courses given in the freshman year of other agricultural colleges.

An agricultural college curriculum that is entirely scientific may be defensible. Such courses are given at some of the agricultural schools. On the other hand, courses in agriculture that are almost exclusively empirical may be desirable. They appeal to a different set of students and seek to attain a different object. The kind of agricultural college curriculum, however, that seems hard to defend is that illustrated in the courses of the University of Vermont, in which the student is carried through preliminary scientific training and then given direct agricultural studies that could be carried on as well without this preliminary scientific requirement.

Not only are the technical agricultural courses inadequately adjusted to the scientific work that has preceded them, but there is a great lack of agricultural work, whether given upon a scientific basis or upon an empirical basis. The student who elects the course in agronomy and horticulture has in agronomy, in his sophomore year, one full semester course in soils and soil management, and for one semester a one-

hour course in grasses and forage plants. In his junior year he can take for one semester a three-hour course in field crops, but he may elect instead plant pathology. This is absolutely all the work the course in agronomy offers to a student who specializes in this subject at the Agricultural College. It would not be regarded as at all sufficient at most colleges of agriculture.

The absence of coördination between the two parts of the agricultural college curriculum indicates that the University of Vermont has not yet seriously set itself to consider what function its Agricultural College can perform. If it becomes a school for elementary instruction in agriculture, it will not need the fundamental sciences in its curriculum; if it is to be an institution for training in scientific agriculture, it is necessary not only to have these fundamental sciences, but also to make its agricultural courses strictly technical, and to offer the opportunity of a good library of technical agricultural literature. In the Agricultural College as now conducted one sees these two divergent aims of agricultural education combined in such a way as to fulfil neither purpose well. By requiring the four-year high school standard for admission and by prescribing the fundamental sciences in the first two years, the school cuts itself off from serving the farm boy who wishes trade instruction in order to return to work on the farm. By making its agricultural courses empirical rather than technical, it has not served well those students who wish thorough scientific training in modern agriculture.

There is also a striking absence of the more familiar agricultural courses. For example, there is no work in entomology beyond an attempt on the part of the professor of zoölogy in the College of Arts and Sciences to make his introductory course cover as much entomology as possible. If the student is to receive a good fundamental training in zoölogy, which is essential to the scientific study of technical agriculture, it is impossible in this course to make entomology anything beyond a bare outline.

There is also no course at Vermont in agricultural chemistry, now almost universally considered a necessity in colleges of agriculture. The agricultural college students in Vermont have altogether only one year's work in chemistry, a foundation quite insufficient for a superstructure of technical scientific agriculture. In the stronger agricultural colleges at least a year and a half, and generally more, is required, with specific courses in the agricultural application of the science.

The absence of effective work in poultry raising is equally striking, particularly in view of the attention paid in other colleges of New England to the opportunities in this direction. For example, at the Massachusetts Agricultural College there is a large building devoted to poultry husbandry, together with several smaller buildings and breeding-houses accommodating a large and excellent stock of the various breeds of chickens, ducks, and geese. Somewhat similar conditions exist in the other New England agricultural colleges. The Rhode Island State College has three courses in poultry husbandry, one of which is required of all agricultural freshmen. In contrast to the activity in this field elsewhere in New England, poultry husbandry is given at

the Vermont Agricultural College only by a non-resident lecturer, at an expenditure by the university of \$150 a year. There is, however, no reason to suppose that Vermont is not quite as much adapted to this lucrative side of agricultural industry as the other New England states. There is a similar absence of other subjects usually present in the curriculum of the better agricultural colleges, such as instruction in farm machinery.

The entire agricultural equipment at Vermont is meagre. Thus, the equipment for teaching scientific dairying is not adequate, the department is not adequately housed, and there are no animals available for teaching purposes. It is true that there are animals upon the farm attached to the Experiment Station, but they have been selected for commercial reasons and are not necessarily adapted to the needs of teaching. In addition, students have no access to this farm and professors very limited access. For this reason live-stock judging cannot be properly carried on, even upon its present empirical basis. For such work the professor in charge is compelled to take his students to commercial establishments in the vicinity of Burlington. There is no piggery. A few pigs live in the manure cellar under the barn. The barn for the dairy cattle, erected twenty-two years ago, is not of modern construction. This lack of equipment seriously affects the work of animal husbandry, — particularly in dairying, which is the principal industry in Vermont. A marked lack of the Agricultural College is the absence of a separate technical library available for the students. There are a few agricultural books, almost exclusively departmental and Experiment Station reports, housed in the basement of the general library. But there is no adequate collection of scientific agricultural literature, and very few of the agricultural technical journals appear. It would be impossible for this to be otherwise in view of the fact that the sum available for agricultural literature each year is only \$62.50.

To sum up the situation with respect to the College of Agriculture, it may be said that its courses are not based upon a consistent educational policy, that the equipment for teaching is meagre, that on their practical side the courses seriously lack equipment, and that by reason of these conditions the College of Agriculture is not adapted to serve well either the needs of the boy who desires to be a practical farmer or those of the youth who looks toward a scientific training in agriculture, and finally, that this whole situation has lent itself to a régime under which the college has a very slender connection with the agricultural industries of the state. It does not help or guide these industries in any such way as should be expected of an efficient agricultural college.

These statements are not made with any desire to criticize the professors in the Agricultural College. These professors are excellent men, and they have done admirably with the means that they have had at their command. The situation in which the College of Agriculture finds itself — the lack of equipment, the empirical quality of its courses, and the failure to connect itself with the industries of the state — is the result of a policy of administration for which the trustees are responsible. This

consists in the expenditure that the trustees make of the generous annual gift that the state receives from the United States government, amounting to a little more than \$88,000. By law \$30,000 of this must be spent for the Agricultural Experiment Station. The \$8130 received as interest on the federal grant of 1862 is not required by law to be expended in any specific manner; \$3200 of it is used in the support of the university treasurer's office. The remaining \$50,000 received annually from the United States Treasury is spent as follows, according to the University's report:

Engineering	\$13,302
Natural and Physical Science	11,246
Botany and Zoölogy	5,660
Agriculture	5,481
Mathematics	5,240
Economic Science	4,697
English	4,122
Sundries	252
<i>Total</i>	<u>\$50,000</u>

One does not need to go farther than this to understand the poverty and deficiencies of the State School of Agriculture. Out of \$58,130 received from the general government chiefly for agricultural education there is expended on the agricultural school as such, \$5481. The remaining \$53,000 are spent upon subjects that the university would teach if it had no school of agriculture. In a word, the appropriation of the general government for agricultural education has been used under the policy of the trustees for the benefit of the general educational development of the university, and in the process the Agricultural College has been milked dry. The college being thus weakened, there is then an effort to help it by turning the Experiment Station into a teaching agency, a process equally injurious to the Experiment Station. It is a singular outcome of the legislation enacted at the instance of Senator Morrill, himself a Vermonter, whose object, as he himself expressed it, was "to do something for the farmer." It is also interesting to note that this policy has been carried out by a board half of whose trustees are appointed by the state in order to look out for the interests of the State Agricultural College. The outcome illustrates how small a measure of state control is vested in a board so constituted. Omitting the \$8130 received from the interest on the grant of 1862, the trustees, after the expenditures made on engineering, the natural and physical sciences, mathematics, economic science, and English, leave themselves, out of the income derived from the federal government, only \$11,141 to spend on agricultural education. Of this sum \$5660 are spent upon botany and zoölogy, which, although necessary for a college education in agriculture, would, under ordinary circumstances, be provided by any university maintaining a college of arts and sciences. In other words, of the total sum of \$50,000 received by the trustees from the United States government because of the presence of the Agricultural

College, only \$5481 are spent otherwise than would be the case if the Agricultural College existed elsewhere. That is to say, only this sum of money is spent upon distinctively agricultural subjects, such as agronomy, soils, horticulture, farm machinery, farm management, dairying, animal husbandry, and the like. This has always been the policy of the university trustees, but it is a policy that has been accentuated in recent years. Twenty years ago the trustees allotted only \$3376 to distinctively agricultural education, but the annual appropriation from the United States government then stood at \$18,000. This appropriation has increased in the intervening twenty years by \$32,000, but the sum allotted to agriculture has grown by only \$2105.

It is worth while to make some comparison of the policy of different institutions with respect to the use of the annual federal grant. This is exhibited in the following table of the disbursement of such funds in 1911-12.¹ In this table the University of Vermont and Rutgers College are the two remaining institutions in the United States in which the state agricultural college is part of a privately endowed institution. The universities of Minnesota, Wisconsin, and Illinois represent states having strong agricultural schools in institutions owned and controlled by the state, and aided also by large state appropriations.

	<i>Agriculture</i>	<i>Engineering</i>	<i>English</i>	<i>Mathematics</i>	<i>Natural and Physical Sciences</i>
Rutgers College.....	\$3,659.59	\$11,108.60	\$5,350.00	\$10,407.09	\$19,474.72
University of Vermont.....	5,481.39	13,202.34	4,122.92	5,240.00	16,905.45
University of Minnesota	10,400.00	11,300.00	6,200.00	4,300.00	10,900.00
University of Wisconsin	20,000.00	10,100.00	5,600.00	5,750.00	5,050.00
University of Illinois.....	25,000.00	.....	.....	5,583.30	19,416.70

This expenditure of the federal appropriations on subjects other than agriculture may or may not be strictly legal. The first Morrill act provided that the funds realized under it should be used in the maintenance of colleges "where the leading objects shall be . . . to teach such branches of learning as are related to agriculture and the mechanic arts," and the expression "mechanic arts" has been universally construed to mean engineering. The act furthermore declared that although such were to be the leading objects of these colleges, this was to be "without excluding other scientific or classical studies," and this comprehensive language was followed in the "second Morrill act," of August 30, 1890. But the debates in Congress when these acts were under consideration show conclusively that it was to benefit agriculture primarily that these appropriations were authorized by the United States government, and as Vermont is predominantly an agricultural state, it is certainly questionable whether the trustees of the University of Vermont by their present method of expenditure are executing the intent of Congress, or serving the best interests of Vermont.

The attitude of the trustees toward the Agricultural College can be appreciated

¹ U. S. Commissioner of Education, Report, 1912, II, 361-363.

only by going back to the history of its establishment. What has gone on in Vermont has in large measure gone on in all other states of the Union. When the first Morrill act was passed providing for agricultural education, neither Senator Morrill nor the states themselves had any clear idea of what sort of institution was to be developed for the benefit of the people on the farms. In this legislation the term "mechanic arts" played a very subsidiary part, and unquestionably was intended at the moment to include only those elementary mechanic arts that are immediately associated with farming. When, however, the states received the grants, and the practical question arose as to what disposition should be made of the money, the term "mechanic arts" assumed an unexpected and far-reaching rôle. The great engineering schools had just been founded. Engineering education had been placed upon a sound scientific basis, and a curriculum for the training of engineers had been adopted that lent itself with fair success to the end aimed at. In the absence of any educational consideration as to how agriculture could be taught or what was the most effective way to serve the educational interests of those upon the farms, the term "mechanic arts" was quickly translated to mean high-grade engineering, and from that day the engineering side of education has overshadowed agricultural education in most of the land-grant institutions.

Not only was there a lack of any educational program for teaching agriculture, but at the time of the Morrill acts, and for many years after, most intelligent people, including farmers themselves, looked down upon the agricultural school as a doubtful agency in education. The students of the Vermont Agricultural College, as everywhere else, were not in favor with the general student body. The "Aggies" were looked upon as decidedly inferior to students of arts, of science, or of engineering; and when the University of Vermont, an old and well-established institution, took over the State Agricultural College, it was not through any sympathy with the ideal of agricultural education, or through any desire to have an agricultural college as a part of the university. The Agricultural College and the students in it lived for many years in an atmosphere in which the prejudices of trustees, of faculty, and — most of all — of students were directed against them. It is not surprising that in this situation the trustees should lend themselves to a policy that enabled them to build up the parts of the university in which they really believed and to devote to agriculture a meagre remainder. In most states this situation has undergone a transformation during the last ten or fifteen years. To-day the applications of science to agriculture, to stock raising, to farm machinery, have all come to be recognized as subjects capable of being taught in a college. Agricultural education, from being neglected, stands now very much in danger of becoming a fad, and of suffering impractical and unwise exploitation for the next quarter of a century. In many states of the Union the agricultural college has developed a close connection with the industries of agriculture, and thereby has brought to its support the farmers of the state, so that it wields not only a large political influence, but obtains thereby a generous state support. This

has not yet happened in Vermont. It is true that the "Aggies" are no longer looked down upon as they were, but the resulting change has brought about no difference of policy as to the spending of the large fund received from the general government. The Agricultural College remains in the same starved condition in which it has existed since its foundation.

The most practical and definite obligation of the state at the present time in higher education is to see that a clear policy is entered upon as to the function of the Agricultural College, and that then, in the second place, the college shall be adequately supported.

Shall the function of the Agricultural College be to train farm boys in the technique of their vocation in some such way as they are trained in the agricultural school at Lyndonville, or shall its function be to develop scientific agriculture in Vermont? Either one of these functions is defensible, but they cannot both be carried on simultaneously. Our experience of fifty years in agricultural education goes to show that a trade school will not grow in a university atmosphere, and that the real function of a university college of agriculture is the promotion of scientific agriculture and the maintenance at the same time of right relations to elementary agricultural training-schools. The second, and in some ways the greatest, function of a technical college of agriculture is the development of a fruitful and stimulating relation with the farming industries of the state in which it stands. To be in close touch with the agricultural problems of the state, to deal with these problems by the best means that science affords, and to put the fruits of these investigations by simple, direct, and feasible methods into the hands of the farmers themselves, is the greatest function that such an agency can perform.

In order to play this rôle, the State Agricultural College must have adequate support. That a state should be receiving from the federal government so large a sum, and that it should, under these circumstances, starve its Agricultural College into a position where it is neither an effective agency for education nor for scientific experiment, is a situation that ought to continue no longer. Whether it be true or not that the legislation enacted by Congress makes legal the expenditure of the United States grant in any way the trustees may choose, it is certainly neither to the honor nor to the credit of a state to receive this generous grant of the general government and use it for the upbuilding of miscellaneous departments of instruction at the expense of the primary purpose for which the appropriation was made. By every consideration of efficiency and of state pride the commonwealth should insist that a fair proportion of the United States annual grant shall go into agricultural instruction, and it should supplement this income by such means as are necessary to effect the contact between the agricultural school and the agricultural industries, a cause which is not within the provisions of the grants made by the general government.

A word should be added as to the work of the Agricultural Experiment Station and its relations with the Agricultural College.

The purpose of the Experiment Station is scientific experimentation in agriculture, including all allied collateral industries. This is a magnificent endowment of agricultural research. In a small state like Vermont, thirty thousand dollars a year ought to produce the most practical, important, and significant investigations of the problems with which the dairyman, the stock-raiser, and the gardener are concerned. It is true that work of a high order in agricultural investigation has been done at the Vermont Experiment Station, but it is also true that the station, as a research agency, has been up to this time a small factor in the improvement of agricultural processes and methods in the state, and this is due in large measure to the fact that it has been used, as far as lay in the power of the trustees, in the interests of the college and the engineering school. The dean of the Agricultural College is the director of the Experiment Station. He has been loaded down with the work of teaching. The same thing may be said of other men on the staff. However desirable it may be that the Experiment Station and the Agricultural College should have a real and vital connection, it is clear that the chief reason for the existence of the former institution has been taken away if its staff is to be made chiefly a body of teachers. No other form of research in the history of the world has ever been similarly endowed. If money could promote investigation in proportion to the amount expended, research in agriculture ought to exceed in efficiency any other field of scientific endeavor. As a matter of fact, however, only a small proportion of these funds ever contributes directly and efficiently to agricultural investigation. They cannot do so when locked up in salaries. Part of this income should remain fluid.

In addition to giving to the Agricultural College an adequate support, it is also clearly the duty of the trustees to set the Agricultural Experiment Station free to bend its efforts directly and energetically to the investigation of those problems whose solution means so much to the individual farmer and dairyman. There is an enormous field in Vermont for the Agricultural College and the Agricultural Experiment Station, but in order that these agencies may do their work, there must be a clear conception of what that work ought to be, a suitable organization for carrying it out, and a use of the money now in hand for the purposes of agriculture rather than for the purposes of general instruction.

THE COLLEGE OF MEDICINE

The College of Medicine of the University of Vermont is one of the old medical schools of the country. It began instruction in anatomy and surgery as early as 1809, and what was considered in that day a full course of lectures was inaugurated in 1822. By 1836 it had graduated 116 doctors of medicine, when, owing to the difficulties of conducting the school in a small place, it was abandoned until the year 1854, when it was reëstablished in an enlarged building. A better building was provided in 1870, and a still better one in 1884. This last was burned in 1903, and the

present building was erected in 1904-6 at a cost of \$125,000. This building, containing the dissecting-rooms, laboratories, and lecture halls, is admirably situated, and is throughout a well-lighted, well-heated, and well-ventilated building, and one excellently adapted to its purposes. With its equipment it is now valued at \$150,000.

Until 1899 the relation of the College of Medicine to the university was, like that of most American medical colleges, a purely nominal one. The college was conducted by a group of physicians, with a nominal affiliation with the university, but practically independent of its control. In that year it was made "a coördinating department of the University under the control of the board of trustees," but it was really not until 1911 that the College of Medicine was, in the language of the catalogue, "made a part of the University system."

The medical school year was lengthened from twenty weeks to six months in 1895, to seven months in 1903, to seven and a half in 1907, and to the same length as the other university terms in 1912.

The College of Medicine is administered through a faculty, with a dean, in much the same manner as other departments of the university. There are at present nine professors, who receive annual salaries of \$15,000 in all, the regular professor's salary of \$2000 being paid to but three men. In addition, there are a number of special professors, assistant professors, and instructors, some of these being special lecturers brought from Boston and from New York to take up particular subjects. In all there are some forty-four teachers on the instructing staff, twenty-eight of whom are chosen from the sixty-one practising physicians in Burlington.

The income of the College of Medicine for the year 1912-13 amounted to \$34,011.49, of which \$20,861.70 came from tuitions and \$10,000 from state appropriations, the remaining small amount being received from laboratory fees and room rent. The expenditures consisted of \$26,928.34 for teaching salaries, \$5,397.15 for equipment and supplies, and \$1,861.62 for the maintenance of the building, leaving a small deficit for the year of \$175.62. The state appropriation of \$10,000 began in 1909 and has been increased for the year 1913 to \$23,500.

The expenses to the student in attending the medical school consist of a tuition fee of \$125, a \$5 matriculation fee, and a \$10 annual athletic fee, besides \$25 at graduation, charges that are comparable with those made in similar medical schools.

For many years the attendance of students upon the College of Medicine has been very large in comparison with the facilities offered. Ordinarily there have been between 140 and 200 students, which is a large number as such medical schools go. The singular fact has been that there should be so large a school in a somewhat remote town.

The explanation of this phenomenon is found in the fact that the majority of the medical students come from outside the state of Vermont. For the year 1912-13 only 32 per cent of the students were from Vermont, the others coming from New York and New England, and in considerable numbers from the cities of Boston and New

York. The reason for this attendance has been that the entrance requirements have been low and that Burlington was one of the easiest places in New England to obtain a medical degree. The inducement that attracted this large group of students was not the belief that they were to obtain a superior medical education in Burlington, but the knowledge that the medical degree was to be won easily there.

The entrance requirements for a number of years stood at 14.5 units, the equivalent of a high school education. The entrance certificates of the 144 men now in the medical school have all been examined from year to year, as they entered, by representatives of the Carnegie Foundation. Last autumn for the first time the new entrance requirements, demanding one year of college work for admission, went into effect. The admissions during these four years have been as follows:

55 entered in 1909
47 entered in 1910
40 entered in 1911
12 entered in 1912

The admissions to the medical school were plainly decreasing even before the higher entrance requirements went into effect. The reasons for this were the gradual rise of medical education throughout the whole country and the growing appreciation of the need for good clinical facilities in the study of medicine. Medical students to-day go in steadily decreasing numbers to schools where the clinical facilities are poor.

It will be noted that under the new entrance requirements only twelve students were admitted in 1912, omitting one who was admitted and soon afterward dropped. Of these twelve only three were from the state of Vermont, four were admitted from other medical schools without college training, while one was a repeater turned back from the former class. In other words, only by a very liberal construction of the entrance requirements was the entering class as large as twelve. It is clear that when the full entrance requirement of two years of college work goes into effect, the school must accept an entering class certainly not larger than ten, and that it can scarcely hope to graduate each year more than four or five doctors, the majority of whom will probably come from outside of Vermont.¹

Those who have studied the medical school in detail have been particularly struck with the high order of devotion exhibited by the dean and by the professors immediately associated with him. They have put into their work great intelligence, sincere devotion to the student, and a high determination to give to those who come to Vermont to study medicine the best education they can furnish. The question of the development of a medical school at the University of Vermont is, however, one to be settled entirely apart from the devotion of those immediately connected with it.

¹ Eighteen men are registered in the entering class of 1913, eight of them from Vermont. Eight had two or more years in college, nine had one year in college — two-thirds of these were conditioned — one entered from another medical school.

Three questions ought fairly to be understood and answered in determining the retention and development of the medical school: (1) Can a modern medical school be developed in Burlington? (2) How much would such a school cost conducted upon a sound plane of medical teaching? (3) Is the state justified in spending the money necessary to maintain such a school?

To answer these questions, the situation at Vermont has been studied by a number of men familiar with medical teaching and with the use of clinical material. Some of these have been associated with the American Medical Association and its Council on Education¹ and others were without any such connection.

The testimony of all of these men is that the question of clinical material for a medical school at Burlington is a difficult one. In order that a student may learn medicine or surgery, he ought to be brought into contact with a large amount of clinical material, cases of the ordinary sort, the ordinary illnesses that men and women have. These he should see in great number. They form really his laboratory instruction. It is clear to those who have carefully examined the situation at Burlington that such clinical material as exists has been made the most of. Patients who come to the clinics are used over and over again to the limit of their ability to submit to such studies. Physicians in the region are asked to send patients, and frequently they do so. Every effort has been made to bring together such clinical material as could be had, but even under the most optimistic view, it is clear that with the greatest effort and the most painstaking application the supply of such material is meagre in a city of the size of Burlington and the villages that surround it. This scarcity of clinical material is felt particularly in subjects like obstetrics or contagious diseases, and it has been the practice for medical students at Burlington to take during the summer, when they could afford it, a course in some city, where the opportunities to deal with obstetrical cases and with contagious diseases were present. Looking at the situation from the most sympathetic point of view and giving full credit to the energy and devotion of the faculty, it is evident that from the standpoint of clinical material the conduct of a medical school in Burlington will always be a difficult matter.

A second serious difficulty in conducting a medical school in a small city far removed from centres of population lies in the problem of obtaining good teachers in clinical and surgical branches. Under such circumstances the school is almost sure to draw its teachers from the group of local practitioners, and although this situation has been appreciated in Burlington and has been helped out, so far as possible, by the importation, for short courses, of men from New York and Boston, it still remains true that the maintenance of a good medical school staff in Burlington would be a difficult and expensive thing. Dr. Nathaniel Bowditch Potter, Assistant Professor of Clinical Medicine in the College of Physicians and Surgeons, New York, who spent two days in an examination of the school, while speaking in the highest terms of the spirit and morale of the faculty, points out this weakness in the phrase: "The teaching body

¹ The Council places the Vermont school not in its first (A +) class of 24 institutions, but in its second (A) class of 42.

is almost as closely inbred as was the teaching force at the Harvard Medical School when I was a student there in the 90's." In other words, on account of the isolation and the expense involved, there is a strong tendency in such a school to organize the teaching staff out of the local members of the medical profession, a tendency which, even with the best intentions, can be overcome only by the expenditure of a large sum of money.

As to the cost of maintaining a modern medical school under such conditions, one can only consider the minimum cost at which a good teaching school could be conducted. The expenditures in the maintenance of the school for the last year were \$34,000, of which sum \$20,000 and more were supplied from tuitions. The amount from tuitions will shrink in the next four years to a practically inappreciable sum, and the school must rely almost wholly for its maintenance either upon endowment, of which it has none, or upon state support. Furthermore, \$34,000 is not sufficient to maintain the school upon a right plane. Somewhere between \$50,000 and \$75,000 will be needed to conduct in Burlington a school upon a university basis and capable of giving a medical education adequate to the demands of present-day teaching. This money must come from the state, if it is to be had at all, and this means that every Vermont student graduated would probably cost the state from five to ten thousand dollars.

Is the state justified in maintaining and developing a medical school under such conditions and in view of the demands made upon it in other directions? Vermont is surrounded by good medical schools, to which Vermont students who intend to study medicine now go. Just north of the state is Montreal, to the east is Boston, to the south is New York,—all great medical centres and with splendidly developed modern medical schools. No matter what the state of Vermont does in the development of a school at Burlington, the bulk of Vermont students who want to study medicine will and ought to go to other places, for they can there obtain a medical education such as cannot possibly be given in Burlington, even when one makes all allowances for the intimate contact of teacher and student, for the small numbers, and for the personal attention. The state of New Hampshire and Dartmouth College have recently dealt with this question in what would seem to be a judicious way. Dartmouth College, like the University of Vermont, has for many years conducted a school of medicine that has been subsidized by the state of New Hampshire. Within the present year it has been decided to give up the last half of this medical course and to leave New Hampshire students free to seek their clinical education where it can be had best. When one considers the pressing need in Vermont for the development of elementary and secondary education and for placing the public school system under a fruitful administration, the expenditure of the large sum of money necessary to develop a medical school under unfavorable conditions is hard to justify.

One other feature of the medical situation needs to be referred to. Vermont has gone quite far in recent years in the effort to deal with social problems, and plans

have been considered for the treatment of the sick poor of the state at some place to be designated. It has been urged that, while a medical school might not be justified upon the ground of the small number of Vermont doctors who would be educated there, it might nevertheless be justified in connection with a state hospital and dispensary for treating the sick poor of the state, and that these patients would, on the other hand, furnish the clinical material for student use.

This argument, however, does not bear a close analysis. Whether the conduct of such a free clinic for the poor of all the towns of Vermont is a wise thing or not is in itself a question for consideration, but if such a state clinic and hospital is to be established, it is perfectly clear that it could be conducted at a cost which would be a mere bagatelle in comparison with the cost of conducting a medical school in addition. Furthermore, it is also evident that the clinical material which would be obtained in this way would have comparatively little significance in medical teaching, since the patients would be nearly all chronic cases, not cases such as the medical student most needs to see. The medical school must, in fact, stand upon its own feet, and must justify itself by the contribution that it will make to the state of Vermont in the training of Vermont physicians. It is in the interest of the people of Vermont to have a reasonable supply of well-trained physicians; it is a matter of very small concern to them where these physicians are trained, so long as they are educated, high-minded, thoroughly prepared men. From all available information it does not seem likely that the abolition of the medical school at Burlington would diminish in any respect the supply of such physicians to the state. The question, therefore, is one to be determined upon its own merits and with full regard to the other obligations in education which the state has assumed. Looked at from this point of view, it seems impossible to justify this expenditure of state money.

XII

MIDDLEBURY COLLEGE

MIDDLEBURY COLLEGE is one of the older institutions of what we now call the American college type. Chartered in 1800, it was the twenty-sixth institution of higher education to be established in the United States. Its charter was singularly free from denominational or state requirements, its sole provision looking to state oversight being that the ordinances of the college shall "be laid before the legislature . . . as often as required, and may also be repealed or disallowed by the state legislature." Even this legislative power has never been exercised. In 1902 the legislature authorized the president and fellows of Middlebury College to establish "a coördinate institution for the higher education of women." The growth of the women's college has been significant since that date, the number of women having increased from 53 in 1903 to 147 in 1913. Women students form at present nearly one-half of the student body.

The college is in the village of Middlebury, which has a population of about 1800. At the beginning of the last century, when the college was organized, it had a population of approximately 1300, considerably larger at that time than the population of Burlington. The town is on the main line of railroad between New York and Montreal, in an attractive region, and is in most respects the typical, somewhat isolated, small New England town.

The government of the college is vested in twenty-one self-perpetuating trustees, the alumni, in accordance with a resolution of the board in 1879, nominating three candidates for each alternate vacancy. At present all of the trustees except four are alumni. The board meets regularly at Commencement and in January. There are few special meetings. The prudential committee, composed of the Middlebury members, meets frequently. The finance committee, consisting mainly of the New York members of the board, meets upon call in New York City. The committee on instruction spends about a week at the college each year and presents reports. The board is a representative, active, and able body. A bill for a state board of visitors, similar to that of Norwich University, passed the last House of Representatives, but was withdrawn in the senate.

The administration of the college under the trustees is of the ordinary character of the smaller colleges. The president supervises the general work of the college, conducts the correspondence, approves expenditures of money, and forms, as in most institutions, the connection between the college and the general public. The other officers of administration consist of the dean, the registrar, the dean of the women's college, and a superintendent of buildings and grounds. The introduction of the women's college would complicate the problem of administration but for the fact that the registration is in one place, the faculty is the same, and instruction is in the same classes, except where these are so large that they must be divided into sections.

To the ample campus of thirty acres, given in 1810, there has since been added the women's campus of thirty-five acres, and the Porter Athletic Field of eighty acres, presented in 1912. The buildings of the college are representative of the periods at which they were erected. Painter Hall, a dormitory, was built in 1814; the chapel in 1836; and Starr Hall, a dormitory, in 1861. These are all stone structures of dignified architecture. The Starr Library was given in 1900 at a cost of \$50,000; the Warner Science Hall cost \$70,000 in 1901; Pearsons Hall, the women's dormitory, cost \$66,000 in 1911; and the McCullough Gymnasium was completed in June, 1912, at a cost of \$51,000. A new and quite elaborate building for chemistry, costing \$50,000, is now nearing completion. The value of the buildings, grounds, and apparatus approximates \$470,000, having been practically doubled in the last six years under the energetic administration of the president now in office. As the buildings are arranged at present they would, with slight additions, afford accommodations well adapted to a moderate-sized college of from 250 to 300 students. The library needs additional reading room.

The endowment, which had been a little over \$400,000, had no appreciable growth until within six years, during which it has been increased to a productive endowment of \$540,000. An additional \$500,000 is now being sought.

The financial resources of the institution, therefore, represent at the present time approximately \$1,000,000. Of this \$380,000 has been added during President Thomas's administration, among the largest contributors being the General Education Board, which gave one-fourth of \$200,000, and Dr. D. K. Pearsons, who gave one-fourth of \$100,000.

The income of the college for the year 1912-13 amounted to a little over \$70,000, as compared with \$31,000 five years ago, a result again due in the main to the energy of the new president. Of the income for the year 1912-13, \$27,427 came from student fees, a result showing an enormous gain in six years. In 1902-3 the income from student fees was approximately \$2500; in 1908 this income was \$5700. This great increase means that many more students now pay their tuition. For many years before the advent of President Thomas, practically any student who desired and asked for it obtained free tuition, a result demoralizing alike to the college and to the student. The remainder of the income is made up as follows: from interest on endowment, \$27,705.78; state appropriation, \$16,250; small gifts for current expenses, some \$380,—in all, as stated before, an income for the current year amounting to \$71,763.32, a sum that has been more than doubled in six years, the sources of increase being better collection of student fees, an increase in the endowment, and a very large increase in the state appropriation.

The expenditures for the year 1912-13 were as follows:

Salaries	\$49,769.15
Departmental appropriations	2,532.19

Library supplies, etc.	\$1,672.66
Miscellaneous expenses, including heat, light, and repairs	20,898.61

The State appropriation was expended as follows:

Scholarships	\$2,400.00
Salaries in pedagogy, home economics, geology, forestry, and zoölogy	8,814.00
Departmental courses ¹	2,000.00
Summer School	1,478.63
Equipment, repairs, and maintenance	549.82
Supplies ²	1,007.55
	<hr/> \$16,250.00

The appropriation of \$2400 referred to above provides for thirty state scholarships at \$80 each on account of tuition. These scholarships are awarded entirely by members of the state senate. Under the Act of 1912 thirty similar scholarships are available for the year 1913-14, also awarded by senators. In addition, during this year the college awarded scholarships amounting to \$4790, making a total scholarship award of \$7190. Of this total \$5460 was given to men and \$1730 to women. No scholarship is competitive; those awarded by the college are based partly on financial need. President Thomas has recommended that all state scholarships be awarded by examination of high school graduates, the student to have a choice as to which institution he will attend.

The cost of student life at Middlebury College is extremely moderate. Tuition is \$80 a year, the incidental fees are \$12, and a room is \$40; board can be had for \$129.50, and the laboratory fees amount to about \$12—a total of \$273.50. For women the expenses are somewhat larger on account of the higher cost of board, the minimum total expense in the case of women amounting to \$304. The difference in the expense to women is not intended as a discrimination against them, but results from the superiority of their dormitory accommodations, which is well worth the difference in cost. The college authorities, however, do favor the men in the matter of scholarships, since there is some apprehension lest the institution become increasingly a women's college, a tendency that is already manifest, and which is likely to be increased by the development of the department for the training of teachers, which attracts many more women than men.

The instructing staff numbers twenty-eight, including the president. Salaries are extremely moderate, the maximum salary of a professor being at present \$2000, assistant professors receiving from \$1300 to \$1700, and instructors from \$900 to \$1000. Notwithstanding the simplicity of life in a small village, the expense of living is nevertheless large, outside of rent, and these salaries represent a really meagre re-

¹ English, French, German, Greek, History, and Latin.

² Forestry, Geology, Home Economics, Pedagogy, and Zoölogy.

turn, particularly when one takes into account the isolation that a teacher accepts in living in a small village, removed not only from the companionship of other scholars, but from the facilities of libraries and literary and scientific societies. In spite of this fact, however, the twenty-eight members of the staff are men of excellent training in good institutions. Fourteen of the degrees held by the group are from Middlebury, eleven from Harvard, seven from Yale, five from the University of Vermont, and four from Wesleyan.

The instruction offered by this staff of teachers consists of 172 courses, announced in the catalogue for 1912-13, of which, however, only 123 were given. The curriculum includes sound courses in the ordinary college studies in science and in arts. These fundamental courses, however, which form the backbone of college work, whether one turns toward the classical or toward the scientific form of education, are somewhat overlaid by a series of elective groups for prospective students of agriculture, education, engineering, journalism, law, medicine, and the industries. The attitude of the college in this matter has been too expansive for thorough work. For example, in 1911-12 agriculture, practical and commercial pomology, and economic entomology were all offered by one instructor. In 1912-13 forestry was offered by a professor who announced six other courses. Industrial, sanitary, and agricultural chemistry was offered by an instructor who announced three other courses. A half-year course in engineering, including materials, highway construction, elementary hydraulics, sanitary engineering, sanitary science, and public health, was offered by an assistant professor who gave four other courses. These excursions into agriculture and engineering seem indefensible from the standpoint of a well-planned college. It may be entirely desirable to include in the college courses sound study relating to agriculture, but that does not justify the announcement of practical agricultural work. It may be desirable to teach surveying to a small class of students, but the insertion of that study does not justify the announcement of a department of engineering and the solicitation of students for such a department. No one would desire to confine the American college to a hard-and-fast curriculum, but it is also perfectly clear that when the college undertakes to extend its activities to applied sciences like agriculture and engineering, or to give specific preparation for professions like journalism and law and medicine, it is compelled to do one of two things: either to make its instruction superficial throughout, or else to obtain a far larger sum of money for support than would be necessary for the legitimate work of the college. Practical agriculture and engineering would in the end be a burden to the college, if fully developed, and they are of little value when superficially done. The inauguration in Middlebury in 1911-12 of the Department of Engineering, in competition with the staff and adequate resources provided in that field by the University of Vermont, and the attempt to develop a department of practical agriculture in competition with the well-equipped State Agricultural College seem unwise departures from the true field of the college. The college has no engineering equipment except surveying instruments, and the offering of a freshman and sopho-

more curriculum in engineering by a single assistant professor, himself a graduate in 1907 of an engineering school, is misleading to the student. The preliminary mathematics, chemistry, physics, and mechanics of an engineering course can be learned at the college, but to announce what seems to be an engineering course is a mistake.

The Department of Pedagogy at Middlebury was established in 1908 by the legislature with an annual appropriation of \$6000, which was increased in 1912 to \$10,400. The head of the department was the former principal of the Johnson Normal School, and his immediate colleague in the conduct of the department was formerly a high school principal and teacher at the Castleton Normal School. The department has good rooms and a special library, which it is planned to make available for teachers. Some use has been made of the local schools for practice-teaching, but this feature of the development is as yet in a rudimentary stage. The work, however, is being prosecuted with vigor. What effect this new development will have upon the college it is not possible at this time to foresee. It may well be that the Department of Pedagogy will in time transform the college into something that may resemble a professional school, largely for women.

It is not easy to define just what constitutes an American college, any more than it is to express clearly what constitutes an elementary school or a secondary school, but it will be generally agreed that the American college stands for a general training in those fundamental studies that are intended to arouse the intellectual and spiritual qualities, to teach the student to think, to help to introduce him to his duties as a man and as a citizen, and to lead him into general cultural relations. It is not primarily a vocational school. On the contrary, its main purpose is to orient the student with respect to intellectual, moral, and social forces, so that whatever vocation he may adopt, he may play a man's part.

It has been the case hitherto that when a technical, professional school has been yoked up with a college, that the technical school has generally run away with the college; and the reason for this is not far to seek, because the technical student comes in the professional spirit. The student of pedagogy or of law or of engineering has his eyes on the method by which he is to make a living. This attitude of mind is quite different from that of the college student, and it ought not to be a bad thing to have such groups associate together, but as a matter of fact it usually has happened that they do not coalesce, even when they are in the same institution. Whether, therefore, the institution of the Department of Pedagogy in the college will turn out to be primarily for the benefit of the development of Middlebury as a college is a question well worth consideration by the trustees and the officers of the institution.

Nothing more clearly indicates the attitude of an institution toward education than the method of enforcement of the entrance requirements that it may adopt, and experience shows that it is not necessarily the amount or difficulty of the entrance requirements that constitutes the difference in institutions, but rather the discrimina-

tion and sincerity with which the adopted requirements are administered. The very purpose of fixed entrance requirements for college lies in the fact that the fundamental idea in the constitution of the American college is to bring together a fairly homogeneous group of students, whose intellectual attainment is at least comparable. Only when the student group is approximately homogeneous in intellectual fitness can it be taught advantageously. Wherever there is a marked difference between the preparation of students, the efficiency of the instruction for the whole group is impaired.

In the enforcement of its entrance requirements during the past few years Middlebury College has shown a certain degree of laxity. The entrance requirements for the arts course have been for a number of years fourteen units, intended to secure the previous completion of a four-year high school course; for the Latin-scientific course the admission requirements were about a half-year less until 1908, when these requirements were also advanced to fourteen units. In 1909, 93 students were admitted, the admissions including a number of students carrying heavy conditions and the approval of certificates that were of doubtful value. In 1910, a number of admissions were also of doubtful character and included the acceptance of students in cases where the headmasters of the schools from which they came considered the quantity and quality of their work unfit for college entrance; expressing this in phrases like the following: "Has credit for only three years of high school work." "I cannot conscientiously recommend him." "This school does not wish to be held responsible for the kind of work that she may do." In 1911, 120 students were admitted. Their certificates, all of which were examined at the time by the Foundation, showed a great improvement in character and quality. The 1912 admissions, on the other hand, showed a considerable relaxation as compared with those of 1911. Briefly stated, the examination of the entrance certificates of 298 students entering during the four years indicates that the students have been very leniently admitted and upon the ground of a standard far less strongly administered than that of the University of Vermont or even than that of Norwich University. Students have been entered when their lack of preparation has not only hampered them, but has also lowered the tone of instruction in the college. It is not too much to say that the college would to-day be improved by the dropping of a considerable number of students who were not ready to enter and whose presence affects the whole quality of instruction.¹ In the records of students coming from the secondary schools, it is noteworthy that the Middlebury College authorities report that in the last five years six of their best students and sixteen of their poorest students have come from the Middlebury school, a situation that reflects, of course, the temptation to admit local students who are unprepared.

¹ Middlebury College has recently decided to adopt the standards of the New England College Entrance Certificate Board, admitting students only with its certificates, or by examination,—a policy that will unquestionably result in a better prepared student body and a wholesome influence on the secondary schools.

The following table gives a record of attendance :

	1902-3	1907-8	1912-13 ¹
Men	65	119	173
<i>Increase</i>		84%	45%
Women	53	84	147
<i>Increase</i>		58%	75%
<i>Total</i>	118	203	320
<i>Increase</i>		72%	57%
From Vermont	61	134	153
<i>Proportion</i>	51%	66%	47%

The growth in student attendance in the college has been marked in the last six years. This is particularly true in the number of women students. Women were first admitted to the college in 1883, and since their separate college charter was obtained in 1902, in spite of larger fees, fewer scholarships, and fewer specialized courses, they have increased more rapidly than the men. In the five years between 1907-8 and 1912-13 the number of women students increased from 84 to 147, or 75 per cent ; while during the same period the number of men increased from 119 to 173, or only 45 per cent.

The interesting fact concerning the student body is that less than half of the students in 1912-13 (34 per cent of the men and 63 per cent of the women) were from Vermont. It is also interesting to note that the registration in science and in pedagogy is increasing more rapidly than that in arts.

Considering Middlebury College from the standpoint of its educational opportunities, therefore, it seems clear that the opportunity that lies before the college is to do well the work of a college and to attempt nothing more. It is situated in a small town. Whatever the student obtains in the way of cultural and intellectual training must be furnished by the college. Its sole appeal to men and women must lie in the opportunity it gives for an isolated but intensive college life. Institutions of this type are of the greatest value. They have brought into our American life many of our best men and women ; their opportunity to train such men and women lies almost entirely in making their college training wholesome, thorough, and sincere.

During the last six or eight years the college has expanded both in numbers and in the field that it attempts to cover. Both expansions have been at the expense of a certain amount of true educational thoroughness. Loosely administered entrance requirements have added to the number of students. The excursion into various collateral fields having bearing upon industrial or scientific subjects has apparently enriched the course of study, but has added little to the real value of the college. The true opportunity of such a college lies in doing the work of a college only. To make the institution more fruitful, there is necessary not so much the teaching of additional

¹ These totals do not include ten graduate students.

subjects as the possession of an income sufficient to pay the highest class of college teacher to do the fundamental work well. This fundamental work is now being admirably done, in most cases, by the existing college staff, which, however, is overworked in the effort to cover too large a field. Meanwhile, the college faces a growing tendency to become a women's college, a tendency greatly accentuated by the inauguration of the department of pedagogy, the candidates for which are almost entirely women. The number of boys from Vermont does not greatly increase, in spite of the effort to attract them. The inducement, in fact, for young men to go to the college becomes less as the proportion of women students increases. While, therefore, the work of the college is distinctly good, and while the opportunity to maintain a good American college will always remain, there are before the trustees and officers of the institution serious problems to consider; they must deal with influences that may within the next ten or twenty years materially change the character of the college.

The direct concern of the state of Vermont with Middlebury lies, however, in the work that the state has subsidized the college to do. It seems perfectly clear that no state ought to subsidize a college like Middlebury, no matter how good an institution it may be, merely for the purpose of enabling it to carry on its general work, unless the institution is owned and controlled by the state. The question, however, that is presented in the subsidizing of Middlebury is this: Is it wise for the state to subsidize a college like Middlebury to enable it to perform for the state a distinctive service, the training of teachers for the secondary schools? Only upon the ground of this distinctive service could such a use of public money be defended at all. The question is whether there is an urgent need for such an agency, and whether Middlebury College can effectively perform that work for the state.

The need of a subsidized agency for the training of teachers of the secondary schools of Vermont does not seem, on careful examination, at all pressing. There are in all the high schools of Vermont fewer than 300 secondary school teachers. To recruit the annual vacancies in this corps does not need a very large number of teachers, and the testimony that has been brought together concerning the appointment of teachers shows that the state has applications from many more secondary school teachers than it has places to fill. These teachers come from various colleges and normal schools,—from Middlebury, from the University of Vermont, from Dartmouth, and from several Massachusetts colleges. They are in the main college graduates, sometimes with special training for teaching, usually without; but there seems to be no difficulty in obtaining many more fairly well-qualified teachers for the secondary schools than there are places to fill. Taking into consideration the many sources of supply for secondary school teachers and the urgent needs of the state in elementary education, the subsidy to Middlebury College does not seem defensible.

Another feature of this situation ought not to be passed over without the most careful consideration. Middlebury College, although subject in a remote way to state control, is practically governed by its own board of trustees. It can be assumed safely

that any department for the training of secondary school teachers that has back of it a state subsidy will in the long run acquire such prestige and influence that its graduates will be in command of the secondary schools of the state. The history of all such college movements goes to show that the college graduate devotes his loyalty to the college rather than to the state, and that he will be guided in his educational policy by his allegiance to the college. In the long run, under this arrangement, Middlebury College would acquire a commanding influence in the whole determination of the educational system of the state. As a question of public policy, it seems extremely doubtful whether any state ought to entrust such power to any institution that it does not own and control.

XIII

NORWICH UNIVERSITY

NORWICH UNIVERSITY was founded at Norwich, Vermont, in 1819 by a former superintendent of West Point. It received its charter as Norwich University in 1834. The adoption of the name "university" was an unfortunate event in the history of the institution. It has never been a university nor can it ever be such, and during the whole of its history it has labored under the disadvantage of doing a work in education wholly out of relation to the name under which it has lived.

In 1866 the buildings at Norwich were burned and the institution was removed to Northfield, which offered grounds and barracks. The village of Northfield is in almost the exact centre of the state, with a population of a little less than two thousand. It lies directly in the hills, the school standing on the level top of one of these hills on the edge of the village. There are in the village no advantages for students outside of those that the college itself offers.

Norwich University is governed by a self-perpetuating board of thirty trustees and the president *ex officio*, all being elected for terms of five years. Five of the thirty trustees are nominated by the alumni. Of the present board ten are from Northfield, eight others from Vermont, four from New York, three from Massachusetts, and one each from California, Connecticut, Iowa, and New Hampshire. There is now one vacancy. Sixteen of the thirty are alumni. The trustees have a Commencement meeting that is well attended, and one other meeting in Northfield during the year. Besides these, two or three other meetings are held, ordinarily at Northfield. These are attended by only a small proportion of the board, and naturally in these meetings the Northfield members compose a large proportion of those present. The executive and finance committees, composed in the main of the local members, meet at the president's call. The management of the institution is quite strongly local.

Two of the state visitors usually attend Commencement for a day or two and make some inspection of the books. No record, however, of the reports made to the legislature by these visitors can be found, although the president of the university states that, according to his best belief, such reports have been made. The law of 1912, which adds the state superintendent of education and the state auditor to the visitors' committee, and requires them to report upon the expenditure of state money, should result in regular reports.

The organization of the institution is simple, but adequate. The president conducts the general affairs of the institution, including the care of legislation, which is an important part of his duties. The dean attends to admissions, promotions, and graduation. The commandant, detailed from the United States Army, is in charge of discipline and military instruction. The institution has been fortunate in the last three years in having as commandant Captain Tompkins, whose detail is just closing,

and who has given a most devoted and effective service in the military department. In the school administration there are ten faculty committees, some active, others less so. The professor of English has in charge the solicitation of students much after the manner of preparatory schools, by circulars, by correspondence, and by visiting school principals, individuals, and promising candidates. The problem of bringing students into the institution is one of the most serious and difficult duties, for reasons that will appear as the general description of the school proceeds.

In order to judge fairly the equipment of the school, it is to be remembered that the institution is not a university in any sense. It is really a modest engineering school with a very strong military element, so strong, in fact, that the military features color all the school work. The afternoons are wholly devoted to military duties and to military instruction instead of being given, as in most institutions, to laboratory and library work. The equipment, therefore, that the institution has for its work is simply the equipment of an engineering school.

The buildings consist of Dodge Hall, the gift of General Dodge, costing \$10,000, which houses the chemical laboratories and certain rooms for drawing and recitations; Dewey Hall, costing \$22,500, given by general subscription, providing a chapel, administration offices, and a small museum; Carnegie Hall, costing \$37,500, providing a rather unsatisfactory library and modest quarters for electricity and physics. A heating plant, costing \$12,500, was erected in 1905. In 1909 the United States government erected a weather bureau building immediately adjoining the grounds at a cost of \$15,000. The drill hall and stables are inadequate wooden buildings. The entire cost of these buildings, exclusive of that of the government, amounts approximately to \$85,000. In addition to the buildings used for instruction and laboratories are two halls whose cost was \$75,000, and which together are able to house 215 cadets, or half as many more as are in attendance.

The laboratories as well as the equipment for the teaching of the sciences themselves are meagre. There is a sufficient number of surveying instruments and an extremely modest equipment for physics and for chemistry. The military equipment is provided by the federal and state governments. Of the 14,700 books only a small fraction are useful. Apparently but little use is made of the library except for magazine reading.

The endowment of the institution at the present time amounts to \$114,800, and the entire value of the plant, including grounds, buildings, and equipment, would perhaps amount to scarcely \$300,000.

The current income of the year 1912-13 is estimated at approximately \$48,000, made up as follows:

From students	\$22,000
Income on endowment	5,500
State appropriation	15,500
Other sources	5,000

The item of \$5000 comes from the sum paid by the Adjutant-General of the state of Vermont on legal authority for the military service of cadets. This sum by the action of the cadets themselves is returned to the institution. The extraordinary situation is here presented of the state of Vermont enrolling in its military service natives of other states and subsidizing them to come to the institution.

The expenditures of the institution for the same period are estimated as follows :

Instruction	\$17,500
Administration	12,500
Current expenses	8,100
Library, including books and service	1,420
Miscellaneous expenditures	7,540
<i>Total</i>	<u>\$47,060</u>

Under the law as now framed, 120 state scholarships were available in the year 1912-13. Fifty-five of these, amounting to \$3850, were assigned by senators. These fifty-five constitute 88 per cent of the total of 62 students from Vermont in the year 1912-13. The remaining state scholarships, assignable by the president, were not used. There are nearly twice as many state scholarships as there are students from the state.

There were also assigned to students not from Vermont 44 university scholarships, amounting to \$1600, and one special scholarship, amounting to \$50,—a total of \$1650. In all, therefore, there was an expenditure for scholarships amounting to \$5500; or 68 per cent of the 147 students in attendance were in receipt of scholarship aid.

The cost of education to the student is extremely moderate, ranging from \$300 to \$450 a year. The authorities report that more than \$500 is seldom spent by a single student. Compared to a city college, the cost is slight, although it will hardly be considered cheap in comparison with what the student gets. Less than one-third, however, of the students in 1912-13 came without some financial aid.

The instructing staff consists of ten professors, three assistant professors, and one instructor. The professor of military science and tactics and the professor of meteorology, who is the local forecaster of the Weather Bureau, are salaried officials of the government. The average salary of a professor is \$1350, and of an assistant professor, \$1100. Considerable increases in salary are planned from the increase in the state appropriation for 1913-14. The salaries at present are extremely low, even taking into account the scale of living which is common in the village of Northfield. Partly for this reason the members of the faculty have been drawn in considerable measure from graduates of the institution itself. Under such conditions the difficulty of getting competent men must be very great. This is illustrated by the arrangement made with the professor of electrical engineering, whose time is divided between Dartmouth College and Norwich University, giving three days a week in each place.

The curriculum offered in Norwich University is that of a somewhat meagre engineering course, which in large measure must be theoretical, in view of the lack of equipment, the limited number of instructors, and the large amount of the students' time devoted to military duties. The instructing staff, which, excluding the president, numbers fourteen, announces 121 semester courses in addition to summer schools and thesis supervision. Sixteen of these courses were not given in 1912-13, and all but one of the remaining 105 were given by 11 persons, an average of about 10 courses a year, or 5 at one time. One professor gave 17, one 15, and two 12 each. In general, the amount of work announced is excessive for the size of the staff, and some of the assignments would seem impossible. For example, the single professor who conducts 17 courses a year is responsible for all of the instruction in the English language, composition, and literature, the English Bible and Oriental classics, economics, law, psychology, logic, and ethics. In the catalogue 20 courses in chemistry are announced, all of which must be given by one professor, who also has other work, and one instructor. An entire program in civil engineering, consisting of 24 semester courses, three summer sessions, and theses, is announced by three teachers, who also announce eight other courses. An entire curriculum in electrical engineering, covering 14 semester courses, is announced by one teacher, who gives one-half of his time to the institution, a promise of instruction that can only mislead the student.

The extended offering of courses for a small number of students results in many small classes :

34 classes with	1 to 9 students
33 classes with	10 to 19 students
20 classes with	20 to 29 students
13 classes with	31 to 38 students
5 classes with	47 to 63 students

Thus, 67 classes, or about two-thirds of the whole number, are economically too small; only about one-fifth are of economically convenient size.

No description of the instruction offered at the institution would be in true perspective which failed to bring out the fact that military instruction and discipline are the backbone, not only of the curriculum, but of the school life. The whole of every afternoon is devoted to military instruction, a larger amount than is given at West Point. No other institution in the country that gives so much military instruction attempts to do full college work at the same time.

The value of this instruction from the standpoint of discipline is doubtless great when it is carried out by so able and conscientious an officer as the one now in charge. This value, however, depends almost wholly on the personality of the officer detailed by the United States government, and even at its best it is certainly a question whether the prospective engineer does not sacrifice his engineering to military training when he puts so large an amount of time into the latter. That the military work is

on the whole well done there seems to be little question. In general, also, the students like the military work. Some of them are sent there with the hope that it may correct deficiencies that have hitherto been unsuccessfully dealt with. There is so little else to draw the students to Northfield that the military inducement is made as attractive as possible.

The entrance requirements until recently have been below those of graduation from a four-year high school, but that standard is now in force, and has been applied with fair sharpness and sincerity. Of the sixty-two students admitted in 1913, two were from colleges or from normal schools, forty-three were high school graduates, one the graduate of an academy, seven were non-graduates admitted on certificate, one a non-graduate admitted on examination, two were admitted on personal interview, two upon certificates returned, and four lacked certificates. The two admitted on the basis of personal interview were both over twenty-one. The entrance standard is not as high as the examinations of the New England College Certificate Board would make it, but it is reasonable, fairly represents high school graduation, and is carried out with entire honesty in spite of strong pressure from parents and principals to take irregular students for disciplinary reasons.

The marking of a student is done minutely and with care, and is on the whole severe rather than lenient. Students are ranked in class. There are daily reports of absence, monthly reports of standing are posted, and term or monthly reports of standing are sent home to parents. The elimination of students is therefore large, most of those who leave going on account of poor work, others to institutions of another kind. The majority of those who go, leave at the end of the freshman year. Naturally, in such close association as obtains in an isolated village, the teaching staff is conspicuously interested in the work of instruction and is in close touch with the student body.

The school confers the degrees of B.A. and B.S. in general course, as well as the degree of B.S. in chemistry, civil engineering, and electrical engineering. The master's degree in arts and science and occasionally the master's degree in civil engineering are given for post-graduate studies under the direction of the faculty, or for professional, literary, or scientific pursuits approved by the faculty. In 1912 there were conferred one degree of bachelor of arts, two degrees of bachelor of science in chemistry, twenty-two in civil engineering, and seven in electrical engineering, while three degrees of bachelor of science in course were granted to members of the classes of 1877, 1898, and 1905, and four honorary degrees were conferred at the same time. In 1911 there were eleven degrees "in course" to members of classes from 1864 to 1886, and fourteen honorary degrees. The honorary degrees granted by the trustees, without the advice of the faculty, are very generously given, to say the least.

The sources from which students are drawn is shown from the following tabulation, extending over ten years:

	1902-3	1907-8	1912-13
Seniors	18	27	18
Juniors	11	31	33
Sophomores	15	38	33
Freshmen	26	72	63
Specials	4		
<i>Total</i>	<hr/> 74	<hr/> 168	<hr/> 147
From Vermont	57 (77%)	87 (51%)	62 (42%)

The proportional attendance from Vermont is thus small, and has decreased from three-fourths to less than one-half. Most of the Vermont students are from a restricted area.¹

In 1912-13 students attended the institution from nine other states. Of these 49, or 33½ per cent of the entire attendance, came from Massachusetts, and 15, or 10 per cent, from New Hampshire,—that is to say, Massachusetts and New Hampshire together sent more students than the state of Vermont. In addition, there were 8 from Connecticut, 5 from Maine, one or two from five other states, and one student from China. The attraction to most of these men who come from outside the state is apparently the military work.

The Dodge-Ellis History of Norwich University shows that in the past fifteen years the graduates have gone in very large numbers into engineering. During that period 175 adopted that profession, 36 went into business of various kinds, 28 into military or naval service, 14 into teaching, 4 into law, and 1 into medicine. About two-thirds of the graduates pursue engineering in one form or another. The term "military service," as applied to a number of these graduates, refers only to temporary service. A representative of the Vermont Marble Company selects seniors from the institution for its work each year.

In general it may be said that here is an institution in a small and isolated community, with meagre equipment and slender resources, offering modest opportunities for training in engineering by a faculty that is ill-paid and overworked. The intimate relation of faculty and students serves to help out the character of the instruction, and the preponderating place given to military drill and military instruction affects the whole conduct of the work and the life of the institution. When one visits the school and observes the devotion that many of its teachers give and notes the loyalty of those connected with it, he hesitates to suggest action that would diminish the meagre support that the school now receives. On the other hand, when one considers the question whether the state of Vermont ought to subsidize such an institution, it seems clear that in justice to the interests of the state itself, in justice to its obligations to other forms of education, and in justice also to the students, the expenditure of state money for such an institution cannot be defended. There is conducted in the Uni-

¹ See Part III.

versity of Vermont a much stronger engineering school, under far better auspices, than can possibly be developed at Northfield. Military instruction there is given by a United States officer equally competent and devoted, although the amount of time given to military training is far less. So keenly are the weaknesses of Norwich felt that it is only by a system of subsidies that students are brought to the school in any considerable numbers. Even under these circumstances a majority of the students come from outside the state. That the state of Vermont should tax itself to support a school whose facilities for engineering are so meagre, whose chief function is military instruction, the majority of whose students are drawn from outside the state, is a use of money that cannot be defended upon any educational grounds, or upon the grounds of the state's duty to the system of elementary and secondary schools. If such a military school is to be conducted, it should be supported from other sources, and the state should apply its own funds to those direct problems of education in which every child on the farm, in the village, or in the town is immediately interested, and upon which the intellectual, moral, and material progress of the state depends. It is here that the state's duty lies.

XIV

THE HISTORY OF VERMONT SUBSIDIES TO HIGHER EDUCATION

THE relations that have existed in Vermont between the state and the three institutions of higher learning that the state has subsidized have been of a somewhat unusual character. The nature of this relation has been described fully in Section X. It was there shown that while the state has retained a certain measure of control with respect to all of these institutions, appointing in the case of the University of Vermont half of the board of trustees, and in the case of Norwich University a visiting board whose function is to criticize and report the condition of the institution, nevertheless the practical working of the relationship results in the subsidizing by the state of independent institutions.

Actual appropriations of money by the state of Vermont to the three institutions of learning began in 1852, when the legislature canceled a vote of the University of Vermont to the School Fund, and divided the remainder of the fund between Middlebury College and Norwich University. No further appropriation was made to any of the three institutions until the year 1884, when an act was passed appropriating to Norwich University \$1500 annually, which was to be used in payment for tuition and room rent for thirty cadets. The first institutional subsidy, therefore, was obtained by that device which has been used so often in so many states,—the state was induced to make an appropriation to an institution under the guise of assisting students.

In 1886 an appropriation of \$3500 annually was voted for the support and maintenance of the State Agricultural Experiment Station, but this act was promptly repealed in 1888, when it was realized that the Experiment Station was to receive support from the United States government. This procedure is also characteristic of legislation in other states. No state of the Union will pay for educational support that it can induce the United States government to give. From that day to this the Agricultural Experiment Station and the Agricultural College have been supported out of the funds granted to the state by the general government, the only contribution of the state being an appropriation of \$60,000 in 1904 for the construction and equipment of a building for the department of agriculture.

In 1888 the University of Vermont and Middlebury College, having noted the success of Norwich University in obtaining a subsidy, secured the passage of an act granting each of them \$2400 a year for four years for paying "the tuition and incidental college charges of thirty students," and the university also obtained that year an additional appropriation of \$3600 for providing competent instruction in branches of learning related to industrial arts.

When these appropriations expired in 1892 they were, by an act of that year, made annual appropriations, and by a second act of the same year the appropriation to Norwich University for the payment of tuition and rent for thirty students was

HISTORY OF VERMONT SUBSIDIES TO HIGHER EDUCATION 195

raised to \$2400 annually. There was thus realized in this year the completion of an arrangement which practically became a gentlemen's agreement, under which the three institutions, or those who represented them, have since that date worked together to the end that each should dip its hand into the state treasury to as large an extent as possible. This process, accompanied with little supervision as to how the money should be expended, has resulted in increasing the state expenditures year by year, and has developed more and more a disposition to play three sections of the state against one another.

ANNUAL APPROPRIATIONS FOR VERMONT COLLEGES¹

<i>Year</i>	<i>University of Vermont</i>	<i>Middlebury College</i>	<i>Norwich University</i>	<i>Total</i>
1884-1885			\$1,500	\$1,500
1885-1886			1,500	1,500
1886-1887			1,500	1,500
1887-1888			1,500	1,500
1888-1889	\$6,000	\$2,400	1,500	9,900
1889-1890	6,000	2,400	1,500	9,900
1890-1891	6,000	2,400	1,500	9,900
1891-1892	6,000	2,400	1,500	9,900
1892-1893	6,000	2,400	2,400	10,800
1893-1894	6,000	2,400	2,400	10,800
1894-1895	6,000	2,400	2,400	10,800
1895-1896	6,000	2,400	2,400	10,800
1896-1897	6,000	2,400	2,400	10,800
1897-1898	6,000	2,400	2,400	10,800
1898-1899	6,000	2,400	6,000	14,400
1899-1900	6,000	2,400	6,000	14,400
1900-1901	6,000	2,400	6,000	14,400
1901-1902	6,000	2,400	6,000	14,400
1902-1903	6,000	2,400	6,000	14,400
1903-1904	6,000	2,400	6,000	14,400
1904-1905	6,000	2,400	11,000	19,400
1905-1906	6,000	2,400	11,000	19,400
1906-1907	6,000	2,400	11,000	19,400
1907-1908	6,000	2,400	11,000	19,400
1908-1909	6,000	2,400	11,000	19,400
1909-1910	16,000	8,400	11,000	35,400
1910-1911	26,000	8,400	11,000	45,400
1911-1912	26,000	16,000	11,000	53,000
1912-1913	26,000	16,000	11,000	53,000
1913-1914	52,300	28,800	20,000	100,100

From 1892 onward, as the preceding table shows, the amount of money devoted to each institution has greatly increased. The annual appropriations for each remained practically constant until the year 1898, the University of Vermont receiving \$6000

¹ It is believed that this table is substantially correct, in spite of the puzzling character of the appropriations which continue, without being mentioned when additional appropriations are made. The table does not include the early grants to the Agricultural Experiment Station, the summer session payments to Middlebury College, or the payments to Norwich University for militia service and forage.

annually, each of the other institutions \$2400 annually. In the year 1898 the friends of Norwich University succeeded in boosting their appropriation by \$3600, the others remaining the same. In 1904 the friends of Norwich University again took the initiative and raised the appropriation of that institution to \$11,000, the others remaining the same. In the year 1908, however, the appropriations for the University of Vermont and for Middlebury College were increased to \$16,000 and \$8400 respectively, the former for the maintenance of medical instruction, the latter to establish and maintain a department for the education and training of high school teachers. Since that date the increases have been rapid, so that for the year 1913-14 the appropriation of the University of Vermont amounts to \$52,300, that of Middlebury College to \$28,800, and that of Norwich University to \$20,000, a total annual appropriation of \$100,100.

The character of this legislation is well indicated in the words of the acts themselves. For example, in some of these appropriations, such as that in 1908 of \$10,000 for the maintenance of medical instruction, the money is devoted by the words of the act to a specific and definite purpose. The same remark applies to the appropriation made in that year to Middlebury for the establishment of a department of pedagogy. In both these cases the language was specific, and the money was devoted to purposes that might reasonably be claimed to be closely related to the educational interests of the whole state.

The legislation enacted in 1910, however, in favor of the University of Vermont and of Middlebury College plainly indicates the general tendency of the competition between these institutions in an effort to cover the whole field of knowledge. In that year the University of Vermont and Middlebury College each received an annual appropriation of \$13,600. The act provided that the money appropriated to the University of Vermont might be used for "providing instruction in the principles and methods of teaching, in branches relating to English language and literature, ancient and modern languages and history, mathematics, political, social, moral and industrial sciences." The language of this act plainly indicates that in 1910 the University of Vermont was getting ready to meet the competition of Middlebury College in the establishment of its department of pedagogy, and that the act was so framed that the money might be used not only for this purpose, but for the purpose of instruction in any other field of knowledge that it might be desirable to enter.

The language of the act appropriating money to Middlebury College was even more objectionable. It provided \$13,600 annually for "the establishment and maintenance of a department of pedagogy for the education and training of high school teachers in said institution, and to provide instruction in forestry and other subjects related to the industries of Vermont." The part of this act relating to the department of pedagogy is merely a repetition of that enacted in 1908. It is specific and direct; but the remainder of the act plainly provided a blanket clause by which Middlebury College could meet the competition of the University of Vermont in forestry and other subjects relating to the industries of Vermont. The language of these two

acts shows clearly the sort of duplication and rivalry that is sure to result where competing institutions are being subsidized by the same state legislature. The only function that Middlebury College can perform is that of a college. For the support of even that work it has not large resources. To expend any funds that it may have in forestry and similar subjects related to the industries of Vermont is to undertake instruction that it clearly cannot give. In these two appropriations the words "industrial sciences" in the one case, and "subjects related to the industries of Vermont" in the other, simply mean that each institution intended to preempt as wide a field of instruction as it could. No better example could be given of the political attitude into which colleges are drawn by such competition.

The passage of these two pieces of legislation was, in the natural order of events, supplemented at the next legislature by the passage of an act carrying an appropriation of \$11,000 annually, and \$9000 more for two years, in favor of Norwich University, to be used in the development of a school of engineering and for "the maintenance of laboratories and equipment for its work in engineering." The state here subsidized with \$20,000 a weak school of engineering a few miles away from a much stronger school already developed at Burlington. With the passage of this act the gentlemen's agreement reached its maximum. Each institution now has its hand in the state treasury for a large amount of money; each institution is careful not to oppose, at least openly, the application for subsidy to the other, but each takes care that when any subsidy is granted its friends shall see that a similar increase is voted to their own institution.

This arrangement has grown up very naturally. Those in control of these institutions are not directly responsible for it. Money has been appropriated year after year under blanket provisions without any real scrutiny from the state as to how it was used, as to the unnecessary duplications that were developed, or the personal and institutional rivalries that were being fed. The situation has been unfortunate for the institutions themselves and for the whole state. The feeling developed between the friends of the separate colleges has spread by the contests before the legislative committees to a far larger number of people than those connected with the institutions. Persons became partisans of one or the other institution without any knowledge of their work or of their relative significance. The whole situation is one whose continuance would be unfortunate from every point of view. It is a question whether the state of Vermont, in view of its obligation to the elementary and secondary school system, ought to make any subsidies to the institutions of higher learning. Higher education does not need this sort of stimulation in New England. Colleges having a real educational service will receive requisite financial support from an intelligent public.

In seeking to make clear to those responsible for legislation and to the public the consequence of the educational rivalry that has existed in Vermont, it should be said that this is done without the slightest desire to criticize those now responsible for the conduct of these colleges. The president of the University of Vermont has been only

a short time in the state ; the president of Middlebury College has had but a few years of service; and the president of Norwich University has been in office somewhat less than a dozen years. These gentlemen and the trustees associated with them inherited a situation that has existed for thirty years. The college president feels most keenly the responsibility of caring for and promoting the interests of his own institution. He is not charged, except indirectly, with the duty of determining whether the state ought to appropriate money or not. His main obligation lies in the development and progress of his institution. He stands too close to his college to be an impartial judge of what the state ought to do for it. That responsibility rests upon the legislators. They are the representatives of the people who have voted money to these competing interests, and they are the responsible agents of the whole people to correct whatever ill effects have resulted from the policy hitherto in force. The present occasion, when a study is being made of the whole educational field of Vermont, is no time for recrimination as to what has been done in the past. It is the time for a sober, judicious, and fair decision of the state's obligation to education, and the determination of a policy for the future that shall serve the interests of the whole people without diverting money to causes that are essentially local or competitive. For this determination the legislator, not the college president, is responsible. The argument of the college president to maintain the *status quo* is one to which the legislator ought not to listen. No college president is an impartial judge as to whether a state ought to make an appropriation for his college. To submit to him such a question is to put him in a wrong position. That question must be answered and that responsibility must be taken by those who are primarily responsible to the people for the spending of the people's money.

THE OUTLOOK FOR HIGHER EDUCATION IN VERMONT

THE preceding sections have dealt in detail with the equipment, the teaching facilities, and the courses of study of the three colleges now subsidized by the state. A brief reference may be made to the general outlook for higher education.

There are at present in the three Vermont colleges some 1026 students of all classes. Of these, 565, a little more than one-half, come from Vermont. On the other hand, some 400 Vermont students are in attendance upon colleges outside the state. There are, therefore, in every thousand of population in Vermont three students of higher education. This is a high rate of college attendance,—the general rate throughout New England. For the future it may be assumed that with good standards and stricter requirements, such as are likely to be maintained, the general growth of college attendance will be no more rapid than in the last ten years.

There is, however, one source from which the student body is likely to receive large additions. In Vermont there are fully as many young women as young men. The effect of the entry of women into the higher professions and into the industrial life of the country is only just beginning to be felt in the colleges and universities of New England. In the high schools there are many more girls than boys. It seems inevitable that the number of women both in the University of Vermont and in Middlebury College will increase, and will equal, if not exceed, the number of the men, as is the case in some of the western state universities.

This result is a perfectly natural outcome of the adoption of the principle of co-education, and is a result that might well have been foreseen from the beginning. The Vermont colleges, however, appear to have realized the significance of the movement only within a few years, and at the University of Vermont and at Middlebury College there is an uneasy feeling over it. Both are a little fearful lest they become distinctively women's colleges. Both offer inducements to men rather than to women. At Middlebury, where the influx of women has been greatly increased by the inauguration of the department for the training of teachers, the women enjoy fewer scholarships.

These precautions are not likely to have any effect against a steadily rising stream. When institutions have adopted the principle of co-education, the growth in the attendance of women is a normal and natural thing. That it will in the course of time change the character of the institutions is not to be denied, but there is no reason to suppose that this change will affect the scholarly and educational value of the institutions. Women students do not contribute to the intercollegiate athletic régime in quite the same way as men, but they are on the whole more conscientious and more studious, and there is no reason to suppose that their presence in the college will take away from the intellectual vigor of the institutions. In any case it is evident that a col-

lege cannot accept co-education and avoid its obvious results. Under the conditions imposed by our social and industrial ideals of to-day, with a population in the state equally divided between the sexes, with the secondary schools containing a far larger proportion of young women than of young men, it is clear that the Vermont colleges will in a few years appeal quite as much to the women as to the men.

A word should be said also as to the large body of Vermont students who now seek educational opportunities at colleges outside of the state. In the campaigns that the colleges have made before the legislature some attention has been called to this matter, and it has been urged that the state should aim, by affording additional facilities, to keep these students in the colleges of Vermont. It requires but a brief analysis of this student migration to show that it is in large measure due to causes that are independent of the opportunities that the Vermont colleges can offer, and that on the whole it is an advantage and not a disadvantage to the state to have its sons and daughters seek superior educational advantages wherever they can find them.

There are, roughly speaking, 400 Vermont students attending colleges outside the state. The institutions to which the largest groups go are as follows, the numbers being those for the year 1912-13. It will be noted that Dartmouth is, next to the University of Vermont and Middlebury, the largest Vermont college.

Dartmouth College	65	Boston University	10
Smith College	30	Worcester Polytechnic Institute	10
Syracuse University	28	Wellesley College	9
Harvard University	27	University of Maine	9
Tufts College	26	Wesleyan University	9
Mt. Holyoke College	26	Massachusetts Institute of Technology	8
Yale University	22	Vassar College	7
Simmons College	20	University of Michigan	7
Cornell University	16	Williams College	6
Columbia University	13	Amherst College	5
Brown University	11	University of Chicago	5

The remaining Vermont educational emigrants are scattered among some twenty-five other institutions.

An analysis of the colleges to which these students go and of the courses of study that they pursue shows that they have gone either in response to certain definite wants or under certain educational preferences. A large group of the students who go outside of Vermont go for better professional training—to law schools like that at Harvard; to medical schools in Boston, New York, and Chicago; to strong engineering schools like those at Cornell and at the Massachusetts Institute of Technology. Another group is made up of students who go to long-established institutions like Harvard, Yale, Williams, and Brown. In many cases these are the sons of alumni of these institutions. In other cases they are attracted by the advantages and the renown of the

institutions themselves. It is quite clear that a considerable proportion of students, among both men and women, are influenced by a preference for institutions that are not co-educational. For example, nearly one-quarter of the entire migration consists of students at the well-known women's colleges. A large attendance at institutions like Syracuse University, Tufts College, and Wesleyan University is due to denominational preferences. No changes that Vermont might make in the support of its institutions are likely to affect these classes of students. Professional students in law and medicine and engineering will continue to go where they can find superior advantages. Graduates of Harvard and Yale and Williams will continue to send their sons to these institutions. Women who prefer a distinctive women's college will continue to go to Smith and Vassar and Wellesley and Bryn Mawr. The Universalists will continue to send their sons to Tufts, the Methodists to Syracuse and Wesleyan, as long as denominational feeling remains strong. Nothing that the state can do will divert this stream of migrating students. On the contrary, it is to the distinct advantage of the state that its sons and daughters avail themselves of the best educational advantages and return to their native state. It is a vital question to Vermont that its physicians should be well trained, but it is a question of comparatively little importance where they get their training. This migration of students is a thing concerning which the state has no occasion to concern itself, so long as there exists in Vermont itself fair collegiate opportunities for its sons and daughters who either prefer to remain at home or cannot afford to go elsewhere.

In repayment of this debt to the outside colleges Vermont extends an educational hospitality to an unusually large number of students who come from outside the state. As has already been pointed out, at the University of Vermont 38 per cent, at Middlebury College 53 per cent, and at Norwich University 57 per cent of the students are not Vermonters. The principal outside sources whence students are drawn to the Vermont colleges are shown in the following table, made up from the student attendance for the year 1912-13:

	<i>University of Vermont</i>	<i>Middlebury College</i>	<i>Norwich University</i>
Vermont	350	153	62
Massachusetts	55	57	49
New York	54	31	1
New Hampshire	21	24	15
Connecticut	24	27	8
New Jersey	13	16	2
Maine	6	0	5
Pennsylvania	6	0	2
Rhode Island	5	3	
Canada	4	1	

It will be seen that, next to the state of Vermont, Massachusetts is the great con-

tributor to the Vermont student body. About 16 per cent of the total attendance in the three colleges is from Massachusetts. They do not come, as one might infer, mainly from western Massachusetts, but from all over the state. One contributory factor in this migration may be the preference of a certain number of Massachusetts students for a co-educational institution. New York is next to Massachusetts in student representation in Vermont. That part of New York lying west of Lake Champlain is practically unprovided with colleges, and the University of Vermont and Middlebury College are the most convenient seats of learning for students from this region. Similar geographical considerations hold with respect to students coming from New Hampshire and Connecticut. It is a fortunate thing that the attendance upon educational institutions of higher learning is independent of state lines. In the long run, all of the states profit by the arrangement, and a state repays by the students that it entertains in its colleges the educational debt it owes to other states.

In the preceding sections an effort has been made to show those essential facts relating to the work of the three institutions which would enable the reader to understand their work and their significance to the state. It would be a simple matter to develop such a study into a minute criticism of the details of each institution. Nothing is easier than to point out the weak places in a course of study, the deficiencies of the teaching staff of a department, the lack of facilities in this or in another direction. Such criticism, however, is of little value either to the institutions themselves or to those who seek to help them. There is always danger that in such a study the consideration of details will obscure the fundamental questions involved.

Any college or university having a real reason for existence must face two fundamental questions: one is a question of educational judgment, the other a question of personnel.

The first may be stated somewhat as follows: Taking into account its situation, its probable resources and its constituency, what fields of education ought the institution to cultivate? What are the possibilities of the college, and what are its limitations? This is a question of educational policy. It is fundamental, and the solution that is made of it controls in greater or smaller degree all other acts that the college performs.

The second question a college has to solve is: Having decided the field in which it may work, how can it secure scholarly and able men to do the work?

College boards of trustees and college officers seldom place these questions in the foreground. As a rule, those who administer the college deal with details. They add a chair here, a department there, and meet the competition of a nearby institution by a parallel course of study. The process is like that of a government bureau. The organization grows by accretion, not by a process of natural growth and a shedding of atrophied members.

The answer to these fundamental questions for any particular institution is to be worked out by those who are responsible for it. No outside agency can do it. The

best that such an agency can do is to give the point of view of the outsider. This has its advantages and its disadvantages. The outside point of view is at least disinterested. It overlooks the whole field. It is not swayed by personal and local influences. On the other hand, it cannot voice the aspirations, the hopes, the strivings of a community or of a state; and educational institutions must take into account not only those things that are seen, but some of the things that are not seen. Educational institutions can no more neglect sentiment than can religious institutions, but, on the other hand, sentiment must not be allowed to run away with sound judgment. The following general observations, therefore, upon these two fundamental topics, as they relate themselves to the three Vermont colleges, are presented from the standpoint of the educational student who recognizes the value of sentiment, and who is willing to see such questions solved not only on the ground of cold reason, but in a spirit of educational sympathy.

In attempting to indicate a feasible educational policy for the University of Vermont, one will take into account first of all its situation. It stands in a cultured and interesting community in a small city of more than usual attractiveness. Such a city ought to afford distinct advantages of a social sort both to the members of a faculty and of a student body; and a part of the problem of those who direct such an institution would be to make the most of these advantages.

From the purely educational side the development of the College of Arts and Sciences of the university would seem to be its first and greatest duty. This college is the oldest branch of the university. Whatsoever of sentiment and tradition has grown up clusters about it. Here the university seeks to do two things: to give a liberal education to those who are to complete in college their formal studies, and to give a liberal foundation to those who will seek preparation for the professions here or elsewhere. To accomplish these ends, strong courses in the humanities and in the sciences are necessary. The student who looks toward law or toward medicine or toward engineering should find here a thorough and fruitful foundation for his profession.

The second obvious and pressing duty of the University of Vermont is the development of the State Agricultural College into a fruitful and efficient educational agency, having a stimulating relation to the industries of the state. The obligation to do this is all the stronger because the university has accepted from the state this trust and has received through the state a generous endowment from the national government. It is a question no less of educational consistency than of educational honor that this college should be made strong and fruitful before the money of the general government is spent for other purposes.

In the third place the university at Burlington is a fitting and suitable place for the development of an engineering school of moderate scope. The state has large interests not yet touched which engineers are to develop. A college of engineering having real and vital contact with these growing interests is clearly within the possibilities and the opportunities of the university.

In the fourth place a graduate school would probably, in the natural order of things, arise slowly out of the undergraduate instruction. There is, however, no other division of American university work that has in the past been less sincere and more open to criticism than the so-called graduate schools. It has been assumed that no research work could be done unless there was a formal graduate school, whereas, if research comes at all, it grows naturally out of the work of teacher and student. Any graduate school should await for its foundation the development of a strong and well-equipped undergraduate college, and should come slowly as the natural blossom of an intellectual plant.

All else that the university may do beyond these things ought to be entered upon only after serious and thorough study, and only after the requisite means have been secured to support upon a sound basis the divisions of work already mentioned. The school of medicine should be given up.

A department of education for the training of high school teachers has been inaugurated. A similar department exists at Middlebury College. As pointed out elsewhere, the number of high school teachers required yearly is small. The supply that presents itself from the colleges both in Vermont and adjoining states is large. Nearly all these college-trained teachers are without actual training in teaching. They have been taught in colleges where a course in education has been formed by adding a certain amount of psychology and theory of teaching to an ordinary college course. Teachers cannot be trained in this way. No school of education is a real training-place for teachers until it offers practice-teaching. The school-room is the laboratory of the school of education. The teachers training college that does not offer such practice-teaching is in the situation that the school of engineering would be if it taught engineering without a laboratory. In this connection one word may be said concerning the attitude of the schools toward practice-teaching. There is a widespread feeling among parents that children in a school that is used for practice-teaching are being made the victims of educational experiment. Nothing could be further from the facts. No child is so well taught as the child in a school where practice-teaching is allowed. The situation is very similar to that in the hospitals in which medical teaching is allowed. The patient in a teaching hospital receives such attention as the patient in other hospitals can seldom obtain at any price. The physician who visits the wards of a hospital with a half-dozen keen students at his heels gives these patients a study that he gives to no other. Here his mistakes, if they are made, will be brought out. He is put on his mettle as under no other conditions. In just the same way the school that lends itself to practice-teaching gets the benefit of teachers quickened at every step by the keen stimulus of the apprentice teacher.

As to the second problem, that of obtaining the men to do well the work which has been determined upon, only a word need be said. This problem is that which confronts every university, whether it be situated in a small city or a large one. Obviously, it is to the interest of the University of Vermont to draw to it the best pos-

sible men as teachers, to have these men represent many varieties of training, and to give them the opportunity to create an atmosphere of scholarly endeavor that shall be inspiring to the student. This is the problem of every university. Every institution has to resist the tendency to inbreeding, and deliberately to widen its choice of men without losing the feeling of coherence and of sympathy. The present salaries at the University of Vermont are low, compared with those at other institutions of its standing, and the bringing of good men to its teaching force will be in some measure, at least, related to the increase of salaries, but it should not be forgotten that no process tends toward the dilution of salaries more strongly than the widening of the field of instruction. The university that undertakes to cover a limited field with a limited number of men can, in the nature of the case, pay higher salaries than an institution which, with the same income, undertakes to deal with the entire field of knowledge. Expansion of the curriculum always means the dilution of salaries as well as of energy. To give a limited number of strong courses by strong men is far better than to give many meagre courses by a large number of ill-paid men.

Turning from the University of Vermont to Middlebury College, one finds here, as at the University of Vermont, an old college with a good history, whose roots have grown in a true educational soil, and which is performing a real educational function in the state and region. Here, as at the University of Vermont, the College of Arts and Sciences is the heart of the institution. This means no duplication of an objectionable sort. Undergraduate student bodies of the size of these two colleges can be taught in two groups without duplication or waste. To teach English, mathematics, chemistry, and physics to two such groups of several hundred students each instead of one is a very different thing from maintaining two technical schools instead of one for a limited body of students.

In Middlebury College, as in the College of Arts and Sciences at the University of Vermont, the aim will be, as it has been in the past, to give both a general education and a grounding for professional work. Strong departments are therefore justifiable not only in the humanities, but in economics and physics and chemistry and biology. The reason for the existence of a strong and vigorous college of liberal arts in Middlebury College which shall do these two things is clear and unmistakable. Whether the college should undertake more than this is a question that those who govern it should consider with the utmost care. Under the stimulus of a state subsidy, a department for the training of teachers is now maintained. Like the department at the University of Vermont, it lacks the prime requisite of practice-teaching. Whether, considered from the purely educational point of view, this large professional department and the College of Arts and Sciences can be developed side by side is at least a question. The spirit and function of the two educational projects differ widely. In the long run, one or the other is likely to gain the ascendancy, and experience shows that the strong professional spirit generally overcomes the less aggressive cultural ideal. From the standpoint of the state it seems clear that the subsidy for the department of peda-

gogy should cease. It would still remain a question whether a department for the professional training of teachers is educationally wise and in the interests of the College of Arts and Sciences. With regard to the other ventures of the college into engineering and agriculture, the decision seems unquestionable. It may be entirely desirable to offer a semester's work in surveying to those students who wish to elect it, but this is quite another thing from holding out the suggestion of engineering. A study like agriculture may be an entirely fruitful subject to incorporate in the college, but to hold out the suggestion that it is a vocational opportunity is sure to be misleading. The college may use any study that it can profitably and advantageously give. It cannot afford, however, to jeopardize its main function of education by offering to students courses that invite by attractive names to a dissipation of their energy and lead neither to culture nor to training. The college student of to-day stands in very much greater danger of intellectual dyspepsia from a series of indigestible courses offered him at random than he is of being restricted to an intellectual diet that is too rigid and meagre.

One who visits many of the small colleges of the country throughout the Union is necessarily led into a fairly intimate acquaintance with the country inns of the college towns. Undersuch circumstances he cannot fail to be struck by an analogy between the hotel menu card and the intellectual bill of fare in the college catalogue. When one inspects the bill of fare that the innkeeper presents to his patrons, he finds himself bewildered by the long array of dishes. He is offered a choice as varied as he would find at a great city hotel, but the difficulty is that out of the whole array he is unable to secure a simple and wholesome meal. He would gladly exchange the wealth of the printed menu for a few simple, wholesome, and well-cooked dishes. The college boy of to-day who comes to college for his four years of study and play and development can, after all, in that four years digest and assimilate only a limited intellectual meal. He finds it no easy task to select such sustenance from the long and varied menu card with which he is presented.

The great and serious difficulty, however, of the country college comes in finding the men for its work. Briefly stated, the college stands face to face with a question something like this: What inducement can be offered to a scholarly and able man that will influence him to come at a meagre salary to a small college, where he is in a large measure cut off from scholarly companionship, from libraries and other facilities, and where conditions are such that a cook cannot be had for love or money?

Fortunately, the actual result of the matter is not quite so hopeless as this question would seem to imply. Material considerations, whether they be those of salary or conditions of living, do not wholly govern the choices made by able and scholarly men. There are many such men scattered through the small colleges of the country, serving on just such meagre salaries under just such difficulties of rising cost and economic maladjustment. The president of Middlebury College himself is an admira-

ble example of an able man serving without regard to the rewards that he might win elsewhere. It is such devotion that saves our colleges from mediocrity, just as the service of the general government is saved by the presence of devoted, able, and ill-paid men of whom the general public never hears.

Nevertheless, it still remains true that the present conditions tend steadily to bring the mediocre man as professor to the college in the small town, and that some effort must be made to better these conditions, if these colleges are to remain fruitful sources for the training of men and women. Hitherto most colleges have been so occupied with plans to catch the student that little time or money or thought has been left for plans to catch the teacher.

Here again the solution must be sought by those directly charged with the responsibility. The problem is difficult enough at the best. Plainly, increased salaries form one factor in the situation, but an examination of many such colleges leaves at least the impression that the solution rests by no means entirely upon financial grounds, and that the matter of better salaries is only one factor in the problem. Those who administer the college in the small town have certain opportunities that they have not hitherto employed by which to make more attractive the life of the teacher and to draw to them better men. Having unlimited light and air and a large amount of ground, teachers' houses of an inexpensive sort, built to make housekeeping as convenient as possible, and rented at a cost that is sufficient to pay for interest and upkeep, is one resource for the country college. Any plan that will take from the shoulders of the teacher's family some of the difficulties of the present situation would make an enormous difference in his outlook. Many a scholar who would willingly live in a small village himself, and who could find there the means of productive scholarship, hesitates to impose upon his wife the difficulties of the régime. It may well be that a plan of simple and convenient housing for professors might be worked out under simple but attractive conditions, perhaps with a common dining-room. In numerous directions the college authorities might make their professorial chairs vastly more attractive without the expenditure of large sums of money; but to carry out such plans will require thought and care and study. In such problems the able men of business who in many cases constitute the trustees of such colleges should be able to render a notable service. No other single question to-day is so important, both to the college of the city and to the college of the small town, as this, and for its solution the small college has certain distinct advantages that it has hitherto not used. One or two men of the first rank in a small college faculty raise the level of all the rest. They create a different atmosphere and furnish the ideals. The college that could bring half a dozen such men into its service would shine in the educational firmament like a star of the first magnitude.

So far as the interests of higher education in Vermont are concerned, these two institutions give every promise of serving them effectively. It is well that they present a diversity of environment and of plan. One is a modest university in a moderate-

sized city, the other a good college in a small town. Their opportunity to serve education lies not in imitating each other or the larger universities, but in an intelligent study and in an effective solution of their own problems. Both have their roots deep in the affections and confidence of the citizens of the state, and in their hands higher education in Vermont will be secure and vigorous without leaning upon a state subsidy.

When one comes to estimate the place of Norwich University in such a general survey of higher education, the conclusion is inevitable. The institution has no such educational reason for existence as the other two. It offers courses in engineering in a field already oversupplied with far better engineering schools. A place more unsuited for an engineering school than Northfield it would be difficult to find. The resources of the institution are wholly unequal to the instruction that it undertakes to give. For some years it has been artificially stimulated by a state subsidy. That subsidy cannot be defended upon any sound public policy or for any sound educational reason. If it is withdrawn, as it should be, it will be the duty of those who administer the institution to face frankly and courageously the question as to the true function of such an institution. The responsibility for this rests not upon the state, but upon those who direct and control the college, and one may hope that, notwithstanding the difficult and trying situation in which these trustees may find themselves, they will deal with this question manfully, patriotically, and from the standpoint of educational judgment, not from the standpoint of institutional sentiment.

Wholesome and earnest as is the student life in the main in these three institutions, there is one side of it that needs far more consideration at the hands of those in charge of them. This is the dormitory life and the problem of supplying a wholesome and simple diet.

Few factors in the life of a young man between the ages of eighteen and twenty-two have more influence than the day-by-day environment of the room in which he lives. While the conditions in the three colleges are not quite the same in this regard, it is fair to say that in none of them does the dormitory life furnish an element in the student's betterment. Conducted generally under the practical direction of the young men themselves, the dormitories present an environment of carelessness and disorder that cannot fail to have its effect on the student. A college is intended to develop the whole man. It may well be doubted whether four years of Latin and mathematics and science in the class-room can overcome the effect of a living-room untidy and ill kept. Simplicity and order are neither expensive nor difficult to obtain. They ought to form part of the college training. There is no better place to inculcate them than in the rooms in which students live. If the college will set itself to deal with this matter, it will use one of the most powerful educational agencies within its reach, and one that does not call for more money. If the college oversight would go a step farther and do something to educate the taste of its students in the matter of the wall decorations in their rooms, it would take a real step in the

development of that culture that looks toward true gentlemanliness. No other lesson is better worth the college effort than that of showing its students how to join good taste with simplicity and economy. Not alone in these colleges, but in most American colleges, there is to-day little or no effort in this direction.

In comparison with the men's dormitories, those of the young women are neat, orderly, and well kept.

The problem of supplying wholesome and simple food to students under good conditions is a more difficult question, and one involving a larger financial responsibility. Nevertheless, it is one deserving of serious consideration. To conduct, in the presence of rising prices, a college commons at a modest rate is no easy task. It is, however, rather a question of efficient organization and oversight than of large capital.

Such questions as these have hitherto been relegated to the rear in determining the policy of American colleges. During the past decade an enormous expansion of the colleges has taken place, both in the courses taught and in the student attendance. The college machinery has been organized with the purpose of getting students into college rather than with settling the question of how they should be dealt with when once there. If for the next decade the American college will turn its attention to the intensive cultivation of its present field rather than to the acquisition of larger numbers, the happiest results will follow.

XVI

PROGRAM OF REORGANIZATION

THE following statement presents the summarized conclusions of the enquiry from a point of view varying somewhat from that which determined the method of treatment pursued in the foregoing report. It is here sought to lay out a provisional program for constructive action in the field to which, it is believed, state educational activities in Vermont may profitably be directed. This tabulation is not, therefore, an exhaustive index to the findings of the report, nor are all points here mentioned given full and systematic discussion in the preceding sections.

I. General Policies:

1. The application of all state school funds and appropriations for education in about their present amount to the development of an efficient elementary and secondary school system.
2. The withdrawal, therefore, of state subsidies from all higher institutions not owned and controlled by the state.
3. The concentration in a State Board of Education of full powers for the regulation and disposition of all state moneys for education, subject to the biennial appropriations by the legislature.

II. Measures for Legislative Enactment:

1. The creation of a State Board of Education consisting of five members to be appointed by the governor, one member to be appointed each year for a term of five years, subject to removal by the governor on charges publicly filed with the secretary of state. The members of this board shall be representative citizens not professionally engaged in education or interested directly in any educational institution; they shall serve without pay. This board shall be a governing and not an administrative board; its duties shall be:
 - (1) To appoint an executive officer to be known as the Commissioner of Education, through whom alone its oversight of the educational affairs of the state shall be conducted; to fix his salary, and in the event of the unsatisfactory performance of his duties, to remove him.
 - (2) To appoint upon the nomination of the Commissioner of Education, and upon his motion to remove, all other officers necessary to the effective administration of the Department of Education, and to fix their salaries.
 - (3) To act in all matters after advising with the Commissioner of Education, who for this purpose shall be *ex officio* a non-voting member of the board; to give validity by its sanction to approved proposals of the Commissioner of Education.
 - (4) To prepare and submit to each legislature a budget of educational expenses for the ensuing biennium.

- (5) To regulate completely the distribution of school funds.
 - (6) To see to the enforcement of all laws pertaining to schools or education.
 - (7) To classify schools; to establish uniform records and reports; to determine the qualifications of teachers, their certification for elementary, secondary, and special schools, and the recognition of certificates and diplomas from other states.
 - (8) To exercise complete oversight and control in schools owned by the state and in educational departments in other state institutions; in schools aided by the state to exercise such oversight as may be necessary to safeguard the conditions upon which aid is granted.
 - (9) To devise necessary agencies both for the initial training of teachers and for their professional advancement in service.
 - (10) To consider the interests and welfare of the whole body of teachers in the state and, if desirable, to undertake the establishment of a retirement or pension fund for their benefit.
 - (11) To study the educational needs of the state and to take steps to provide adequate facilities for such vocational or other training as may be considered advantageous.
 - (12) To establish in coöperation with the State Board of Health standards for the construction, arrangement, and sanitary equipment of school buildings and school sites; and to direct the medical inspection and study of public health in so far as schools are concerned.
 - (13) To give state-wide publicity to accurate and comprehensive information regarding the educational facilities both within and without the state.
 - (14) To make an annual report to the governor of its acts, together with an itemized account of its expenditures of school appropriations.
2. The transfer to the State Board of Education thus created of the powers and duties now belonging to the present Board of Education, to the Trustees of the Permanent School Fund, to the Trustees of the State School of Agriculture at Randolph, to the Board of Trustees of the State School for Feeble-minded, to the Commissioner of the Deaf, Blind, Idiotic, and Feeble-minded Children of Indigent Parents, and to the State Board of Penal Institutions, in so far as the Industrial School is concerned; and the enlargement of such powers and duties to full discretion and control in each of these respective fields.
 3. The discontinuance of the normal schools now conducted at Johnson and Castleton.
 4. The repeal of all laws inconsistent with the intent of the above recommended legislation.

III. The Administrative Policy of the State Board of Education:

1. General Features:

- (1) The appointment, with adequate salary, of an executive capable of exercising the foremost educational leadership in the state.
- (2) The appointment of a sufficient number of trained inspecting and supervising officers to make the policy of the Board of Education understood and effective in every school.
- (3) The maintenance of an education department equipped for the appropriate handling and educational use of records, reports, and accounts, as well as for the proper transaction of the business of the executive staff.
- (4) The use of the classification of schools, the regulations for the distribution of school funds, the qualification and certification of teachers, and all other administrative measures as means for securing the greatest possible educational activity and efficiency throughout the state.
- (5) The provision for a trustworthy school census, supervised by local superintendents and giving information having educational importance.
- (6) The introduction of a simple and uniform system of school reports and school accounting for teachers, school committees, and other town officers concerned.

2. The Elementary Schools:

- (1) The award to towns of state aid in any form only for schools complying with state regulations in respect to hygiene of grounds and buildings, qualifications and salaries of teachers, and character of equipment and maintenance.
- (2) The award to heavily taxed and needy towns, fully complying with state regulations, of a differential aid tending to equalize the school expenditure per pupil according to a standard to be determined by the board.
- (3) Sufficient inspection on the part of state supervising officers to give the local superintendents the benefit of their experience and influence, and to protect the conditions on which the state board grants aid.
- (4) The guarantee in every school of a school year having a standard length to be determined by the board.
- (5) The complete elimination of the ninth grade.
- (6) An immediate revision and standardization of the curriculum, providing each teacher with a clearly detailed and feasible program of work suited to the locality.
- (7) The abolition of the free tuition examination so soon as a curriculum is available and state inspection has been well established.
- (8) The requirement that in return for state aid the problems of consolidation and transportation be submitted to officers of the State Board of Education for adjustment, thus giving each town the benefit of the general experience.

3. The Secondary Schools:

- (1) A classification of high schools on the basis of sustained excellence of equipment and operation.
- (2) The award of state aid only to high schools complying with the board's regulations in respect to hygienic conditions of grounds and buildings, character of

equipment and maintenance, qualifications, salaries, and service of teachers, and nature and extent of curriculum.

- (3) Constant, systematic inspection on the part of a competent state officer.
- (4) The use of school funds to develop a few carefully selected high schools as central or regional institutions affording enlarged opportunities during the last two years of the course, together with adequate vocational facilities, particularly in agriculture, in their junior divisions.
- (5) The reorganization by the same means of the remaining high schools into junior high schools offering a four-year course beginning with the seventh grade and including the first two years of the present high school.
- (6) The thorough revision of the curriculum to meet the new lines of organization and to secure more varied, more appropriate, and more elastic courses.

4. Vocational Schools:

- (1) Modifications in the curricula of the elementary schools and of the junior high schools with a view to securing a sympathetic attitude toward vocational training.
- (2) The establishment in the junior division of all the proposed central high schools of thorough vocational courses in agriculture, and later, of other promising forms of vocational training.
- (3) The extension of vocational courses in the upper years of the proposed central high schools as conditions may require.
- (4) The gradual development of distinct vocational schools in agriculture and other trades.

5. Supervision:

- (1) The extension of the present system of union superintendents, with increased emphasis upon their qualifications and salaries.
- (2) The gradual enlargement of their districts to coincide with the proposed regional high school districts.
- (3) The eventual consolidation of such districts into compact administrative units including all schools under one competent head.

6. The Training and Certification of Teachers:

- (1) The intensive development in high schools in all parts of the state of training-classes for elementary teachers.
- (2) The eventual establishment of a single high grade teachers' training-school to prepare teachers for the junior high schools and for higher grade positions, to bring leadership and unity to the work of the training-classes, and to afford permanent facilities for summer schools and special courses for teachers in service.
- (3) The regulation of financial aid primarily with a view to ensuring the employment of good teachers.
- (4) An increase in the qualifications required of secondary school teachers in respect to (a) concentration of preparation on the subjects that are to be taught; (b) experience in teaching under competent professional criticism.

- (5) Modification of the system of certifying teachers in favor of (*a*) shorter term certificates commensurate with the degree of preparation; (*b*) the principle of probationary certification, with extension only after competent inspection in service.

PART III

STATISTICS

INTRODUCTORY NOTE

LETTER TO CITIZENS OF VERMONT WITH TABULAR ANALYSIS OF REPLIES

GENERAL STATISTICS OF VERMONT FOR THE FIVE DECADES, 1860-1910

1. TOTAL POPULATION; 2. SCHOOL POPULATION; 3. SCHOOL ATTENDANCE; 4. INDUSTRIAL POPULATION; 5. FINANCIAL CONDITION

(A) WEALTH; (B) ASSESSED VALUATION; (C) CENSUS VALUATION OF NATIONAL WEALTH

SCHOOL FINANCES IN VERMONT IN 1912

1. SUMMARY OF GRAND LISTS; 2. PERCENTAGE OF THE GRAND LIST LEVIED BY THE VARIOUS TOWNS FOR SCHOOL PURPOSES; 3. PER CAPITA YIELD OF THE SCHOOL TAX IN THE SEVERAL TOWNS

BUDGET OF THE FINANCIAL EXPENDITURES FOR SCHOOLS AND EDUCATION IN 1911-12

PROPORTIONAL DISTRIBUTION OF CURRENT EXPENSES IN 1911-12

THE VERMONT PUBLIC SCHOOLS IN 1912-13

SUPERVISION: SALARIES OF TOWN AND UNION SUPERINTENDENTS

THE ELEMENTARY SCHOOLS: THE TEACHERS

(A) AGE; (B) EXPERIENCE; (C) WEEKLY SALARIES; (D) ANNUAL SALARIES

THE SECONDARY SCHOOLS

1. CLASSIFICATION; 2. COMPARISON OF SELECTED FACTORS OF EFFICIENCY IN LARGE AND SMALL SCHOOLS; 3. COMPARISON OF THE COST OF INSTRUCTION IN LARGE AND SMALL SCHOOLS; 4. TABULAR VIEW OF THE SIZE OF CLASSES; 5. PERSONALIA OF PRINCIPALS; 6. PERSONALIA OF FULL-TIME TEACHERS (EXCLUSIVE OF PRINCIPALS); 7. THE COLLEGES WHERE PRINCIPALS AND TEACHERS WERE TRAINED; 8. COMPARATIVE VIEW OF THE WEEKLY NUMBER OF RECITATION PERIODS REQUIRED OF PRINCIPALS AND TEACHERS, TOGETHER WITH THE AVERAGE MEMBERSHIP OF THEIR CLASSES; 9. THE SALARIES OF PRINCIPALS AND THE AVERAGE SALARIES OF FULL-TIME TEACHERS

DISTRIBUTION OF ATTENDANCE ON THE HIGHER INSTITUTIONS BY COUNTIES

1. UNIVERSITY OF VERMONT; 2. MIDDLEBURY COLLEGE; 3. NORWICH UNIVERSITY

RECOMMENDATIONS OF THE VERMONT STATE BOARD OF HEALTH RELATIVE TO SCHOOLS

INTRODUCTORY NOTE

THE material included in the following pages constitutes but a small portion of the statistical data gathered by the agents of the enquiry. At every point in the study where such information was available the effort was made to assemble and consider fully the statistical facts before proceeding to conclusions. In most cases the results appear in summarized form either in the text or in the footnotes of Part II. Where it was felt that the complete array would prove of particular interest it has been printed in full herewith.

A large part of the material from which much had been expected proved, when subjected to careful scrutiny, to be untrustworthy. The statistics contained in the biennial school reports are frequently of this nature. These large and impressive volumes, published for many years, contain the biennial report of the superintendent of education, which is usually a message of state-wide importance. To this is attached, however, a mass of uninterpreted statistical detail having little practical value. The data are gathered through well-worn channels from various sources, chiefly from the clerks of the towns. The forms on which they are returned are antiquated; the questions are frequently confusing to those who are asked to answer them, and lead easily to error. Where the returns should correspond with those from other sources there are wide discrepancies. Some items are without importance, and occasionally the results are wholly misleading because of duplication. It is impossible from such data to construct accurate comparative statistics.

At present the state education department is not prepared to collect or to deal with such material in the proper way. The superintendent of education is too heavily burdened already to undertake such work, and he is provided with no adequate staff or funds for the purpose. If the recommendations already outlined elsewhere are carried into effect, the whole matter will be placed in charge of a trained assistant who understands somewhat of the educational significance of his duties, and he will be provided with ample clerical facilities. The forms should be thoroughly revised and simplified. Even so it will require constant watchfulness in securing and checking up the results. It is possible that all except the financial information should be supplied directly by the local educational authorities instead of by the town clerks. In any case the published educational statistics should be simple, clear, and consistent; as far as they go, they should represent the situation truthfully and accurately, and should furnish a sound and convincing argument for the projected policies of the department.

Statistical comparisons of Vermont with other states, in respect to educational facts, are withheld for reasons similar to those which make comparative statistics of state facts questionable. Until some uniformity can be introduced into state accounting, so that the homogeneous and comparable character of gross sums can be assured, comparative financial displays are certain to be unreliable. Moreover, even if it were possible to depend upon the figures, the mere comparison of expenditures between states

must serve inevitably to flatter or wound state pride without reference to the significance or justice of the relative situation. To be of genuine service, a comparison must be as accurate and complete in its definition of the problem with which each state is confronted as it is in its record of the means taken to solve it. That Vermont apporitions six per cent of its entire school expenditure for the transportation of pupils while another state uses but two per cent for that purpose is, by itself, a wholly blind comparison. For profitable information of this sort, therefore, we must await not only accurate and uniform accounting systems, but also the scientific appraisal, in comparable terms, of the educational situation with which each state has to deal. Until such material is available to show in identical terms the extent to which various states provide for meeting identical needs, it behooves each state to attack its actual situation not by imitation of others, but in the spirit of intelligent independence.

In order to afford opportunity for the free expression of opinion on the part of those best fitted to judge of Vermont's educational conditions and needs, the following letter was sent by the Educational Commission to about two thousand persons, including union and town superintendents, members of school boards, principals and teachers in high schools, teachers in elementary schools, and a large number of representative citizens not directly connected with education.

Montpelier, Vermont, May 10, 1913.

IN your best judgment, what are the two or three essential matters that should first receive attention in order to enable the schools of Vermont to render the most effective service to the children and to the people of the state?

Will you please answer at your early convenience the above question, which is being submitted at this time to a number of the representative citizens of Vermont by the Educational Commission, recently created by the legislature to undertake an investigation of the educational system and conditions of the state?

The Commission realizes the great value of the mature judgment of those citizens of the state who stand nearest to its activities and institutions, and who desire to conserve its best interests.

Assuring you of our appreciation, I am

Very sincerely yours,

JOHN H. WATSON, *Chairman.*

The replies to this letter arranged in order according to the numerical strength of the various suggestions appear in the following table:

	<i>School Boards</i>	<i>Teachers in Higher Elementary Schools</i>	<i>Teachers in Lower Elementary Schools</i>	<i>Principals of Secondary Schools</i>	<i>Teachers in Secondary Schools</i>	<i>Union Supts.</i>	<i>Town Supts.</i>	<i>Representative Citizens</i>	<i>Total</i>
Better trained teachers	125	33	22	10	12	29	12	70	313
Higher salaries for teachers	41	20	21	11	11	12	6	34	156
More efficient supervision	38	11	11	8	5	14	11	50	148
Coöperation with home	43	15	16	10	10	2	9	16	121
Consolidation of small rural schools	40	9	12	2	1	17	6	21	108
More practical courses	23	12	12	13	10	1	2	24	97
Better sanitary conditions	31	11	20	....	4	4	6	7	83
Better buildings	31	8	5	8	2	6	3	13	76
Agricultural education	21	6	6	8	....	7	3	18	69
Better grading	15	5	14	9	6	2	6	10	67
Stress on three "R's"	24	4	7	2	4	3	....	19	63
Uniform courses of study	10	8	5	6	3	8	7	10	57
Better morals	17	5	3	6	3	....	1	14	51
Longer term of school	18	12	9	3	1	1	1	4	49
Better enforcement of compulsory attendance	17	2	3	3	2	7	1	11	46
More school supplies and libraries	7	7	8	6	5	2	6	....	41
Vocational training	10	5	5	5	5	....	2	8	40
Medical inspection and physical education	10	4	7	3	3	1	1	7	36
More care in selection of text-books	5	14	2	1	....	....	1	3	26
Manual training and domestic science	5	2	3	5	5	....	....	5	25
Legislation to aid in establishing central and union schools — pay higher salaries, etc.	7	3	3	1	1	1	1	....	17
Special attention to raising standard of smaller schools	2	....	....	....	....	1	1	9	13
College requirements — distinction	....	....	....	6	2	....	....	5	13
Less cramming	3	1	2	....	3	1	....	1	11
Longer term of office for teachers	3	....	....	4	....	1	1	1	10
No conveyance paid	6	....	....	....	....	....	....	2	8
Fewer text-books and more practice work	3	....	2	....	1	....	....	1	7
Higher age limit for children	1	1	2	....	....	2	....	....	6
Closer supervision of playgrounds by teachers	1	1	1	....	....	....	1	1	5
No consolidation	2	....	....	....	....	....	....	2	4
Advanced mathematics, bookkeeping, and English literature	3	....	....	1	....	....	....	....	4
Repeal of laws prohibiting corporal punishment — better discipline	....	....	....	....	....	....	....	4	4
More attractive arrangement of studies	....	1	1	....	....	....	1	....	3
Civil government	....	1	....	1	....	....	1	....	3
No state permits for teachers	1	1	....	....	....	....	1	....	3
Regent system	....	1	....	....	....	....	....	1	2
Fund to enable impoverished children to remain in school	....	....	....	....	1	1	....	....	2
Pensions	....	....	....	1	....	....	1	....	2
A board to make out and correct examination papers	2	....	....	....	....	....	....	....	2
A higher standard for schools, and laws to compel its observance	1	....	....	1	....	....	....	....	2
More town and less state control	1	....	....	....	....	....	....	1	2
Economy on part of teachers and scholars in use of school supplies	2	....	....	....	....	....	....	....	2
Music	....	1	1	....	....	....	....	....	2
Oral recitation	1	....	....	....	....	....	....	....	1
Immoral children removed from school	1	....	....	....	....	....	....	....	1
School laws based on new tax laws	1	....	....	....	....	....	....	....	1
Condense school laws	1	....	....	....	....	....	....	....	1
No home town teachers	1	....	....	....	....	....	....	....	1
More teachers on special subjects	1	....	....	....	....	....	....	....	1
Uniform entrance examinations for all high schools	....	....	....	1	....	....	....	....	1
Old method of teaching languages	1	....	....	....	....	....	....	....	1
Distribution of state money per capita, for each scholar attaining certain requirements	1	....	....	....	....	....	....	....	1
Total number of letters sent	725	153	180	96	68	57	57	785	2139
Total number of replies received	235	73	82	56	39	54	38	372	940

EDUCATION IN VERMONT

GENERAL STATISTICS OF VERMONT¹

I. TOTAL POPULATION

	<i>Total Population</i>	<i>Males</i>	<i>Females</i>	<i>Rural Population</i>	<i>Urban Population</i>	<i>Native Born</i>	<i>Foreign Born</i>
1860	315,098	158,786	156,312			282,355	32,743
1870	330,551	165,721	164,830			283,396	47,155
1880	332,286	166,887	165,399			291,327	40,959
1890	332,422	169,327	163,095	215,359	117,063	288,334	44,088
1900	343,641	175,138	168,503	204,461	139,180	298,894	44,747
1910	355,956	182,568	173,388	187,013	168,943	306,035	49,921

2. SCHOOL POPULATION

	<i>Between the Ages</i>	<i>Total</i>	<i>Boys</i>	<i>Girls</i>
1860	5-15	68,976	35,060	33,916
	5-20	102,634	52,192	50,442
1870	5-18	89,831	45,667	44,164
1880	5-14	67,726	34,633	33,093
	5-19	99,463	50,520	48,943
1890	5-17	81,957	42,251	39,706
	5-20	101,457	52,340	49,117
1900	5-14	62,025	31,405	30,620
	5-19	93,495	47,140	46,355
1910	5-14	64,108	32,367	31,741
	5-19	95,269	48,489	46,780

3. SCHOOL ATTENDANCE

	<i>Total</i>	<i>Boys</i>	<i>Girls</i>
1860	79,565	41,363	38,202
1870	72,199	38,813	33,386
1880	73,237	37,300	35,937
1890-91	65,608 *		
1900	60,082	30,326	29,756
1910	66,845	33,449	33,396

4. INDUSTRIAL POPULATION

	<i>Agriculture</i>	<i>Transportation</i>	<i>Professional and Personal Services</i>	<i>Manufacturing (Combined)</i>	<i>Mining</i>
1860					
1870	57,983	7,132	21,032	22,616	
1880	55,251	8,945	28,174	26,214	
1890	56,183	14,551	28,335	29,702	
1900	49,820	18,889	30,544	36,180	5,398
1910				33,788	8,388

5. FINANCIAL CONDITION

(a) WEALTH

	<i>Farms</i>	<i>Quarries</i>	<i>Manufacturing Establishments</i>	1900	
1860			\$14,637,807	<i>Real Property</i>	\$184,153,290
1870			32,184,606	<i>Live Stock and Farm Equipment</i>	26,927,890
1880			31,354,366	<i>Manufacturing</i>	11,682,873
1890	\$101,805,370		38,340,066	<i>Trade</i>	39,374,071
1900	108,451,427	\$5,904,705	57,623,815	<i>Bullion</i>	6,312,728
1910	145,399,728	8,221,323	68,310,000	<i>Miscellaneous</i>	61,465,956
		(product)	(product)	<i>Total</i>	\$329,916,808

(b) ASSESSED VALUATION *

	<i>Real Property</i>	<i>Personal Property</i>
1860	\$70,341,721	\$16,530,130
1870	80,993,100	21,555,428
1880	71,114,747	15,037,262
1890	112,895,125	49,203,388
1900	118,950,024	40,884,198
1910	143,386,564	45,106,982

(c) CENSUS VALUATION OF NATIONAL WEALTH

1860	(taxable)	\$122,477,170
1870	(taxable gold basis)	188,279,642
	(taxable currency basis)	235,349,553
1880	all	302,000,000
1890	all	265,567,323
1900	all	329,916,808
1904	all	360,330,582

¹ These statistics are based on the U. S. Census returns, with the exception of those marked with an asterisk.

SCHOOL FINANCES IN VERMONT IN 1912

1. SUMMARY OF THE GRAND LISTS¹ OF THE
268 TAXING UNITS IN VERMONT IN
1912

<i>Amount of Grand List</i>	<i>Number of towns or tax units</i>
\$342- \$1,000	9
1,001- 2,000	25
2,001- 3,000	37
3,001- 4,000	34
4,001- 5,000	43
5,001- 6,000	23
6,001- 7,000	15
7,001- 8,000	19
8,001- 9,000	12
9,001- 10,000	11
10,001- 15,000	17
15,001- 25,000	12
25,001- 50,000	5
50,001-100,000	5
167,588	1

2. PERCENTAGE OF THE GRAND LIST LEVIED
FOR SCHOOL PURPOSES IN 1912 IN THE
268 TAXING UNITS IN VERMONT

<i>Percentage of Grand List</i>	<i>Number of towns or tax units</i>
20- 29	4
30- 39	10
40- 49	12
50- 59	70
60- 69	73
70- 79	65
80- 89	13
90- 99	7
100-109	8
110-119	4
125	1
140	1

3. PER CAPITA YIELD OF THE LOCAL TAX LEVY FOR SCHOOL PURPOSES IN 268 TOWNS
AND TAX UNITS BASED ON THE NUMBER OF CENSUS CHILDREN
BETWEEN 5 AND 17 YEARS OF AGE, INCLUSIVE

<i>Amount per child</i>	<i>Number of towns or tax units</i>	<i>Amount per child</i>	<i>Number of towns or tax units</i>
\$5.50- \$6.49	2	\$23.50- \$24.49	8
6.50- 7.49	2	24.50-25.49	6
7.50- 8.49	4	25.50-26.49	6
8.50- 9.49	5	26.50-27.49	6
9.50-10.49	10	27.50-28.49	2
10.50-11.49	12	28.50-29.49	1
11.50-12.49	18	29.50-30.49	3
12.50-13.49	19	30.50-31.49	2
13.50-14.49	26	31.91	1
14.50-15.49	28	32.75	1
15.50-16.49	22	44.56	1
16.50-17.49	20	45.45	1
17.50-18.49	8	49.03	1
18.50-19.49	14	51.02	1
19.50-20.49	9	53.43	1
20.50-21.49	10	65.87	1
21.50-22.49	7	70.18	1
22.50-23.49	8	83.91	1

¹ The "Grand List" in Vermont consists of one per cent of the assessed value of the real and personal property plus the ratable polls.

BUDGET OF PUBLIC EXPENDITURES FOR EDUCATION IN VERMONT

FROM JULY 1, 1911, TO JUNE 30, 1912

GENERAL		LOCAL		STATE		FEDERAL
Administration		Union superintendents ¹ Non-union superintend- ents ¹	\$18,514.34 <u>3,476.46</u> \$21,990.80	Board of Education ² Superintendent of Education and Office ³ Union superintendents, earned in the school-year 1911-12, but paid in September, 1912 ¹	\$916.64 7,654.33 <u>55,014.32</u> \$63,585.89	
Common schools	\$85,576.69	General expenses ⁴ Teachers' salaries Water, fuel, and light Janitors Repairs Debt, curr. exp., 1911 Misc. items Supplies and appliances Text-books Insurance, rent Furniture Tuition, elementary inst. School directors Truant officers Medical inspection	\$968,392.35 85,397.68 67,394.30 66,462.97 61,632.74 47,869.15 46,413.30 41,020.50 15,990.01 13,116.69 11,291.17 11,046.59 3,511.14 326.23 <u>\$1,440,400.82</u>	Contributions to towns in reimbursement for the general expenses incurred in 1911-12: 1. Reserves distributed in proportion to the percentage (over .5%) of valuation expended for current school purposes (a) Apportioned from public school tax ⁵ (b) Apportioned from permanent school fund ⁶ 2. Income distributed in proportion to the number of "legal" schools in each town: (a) Public school tax apportionment, 1912 ⁶ (b) Permanent school fund apportion- ment, 1912 ⁶	\$45,000.00 <u>15,000.00</u> \$60,000.00 \$131,876.63 <u>34,807.49</u> 166,684.12	
		Deduct state reimbursements earned in the school year 1911-12, but paid in Sept., 1912, and applied on the expenses of the following year, \$60,000 + \$166,684.12 (see <i>State column</i>) =		State's share of tuition for advanced in- struction, apportioned in proportion to per- centage of valuation expended ⁷	27,415.54	
		Share of tuitions for advanced instruction ⁸ Share of transportation and board ⁹ New buildings and debts for new buildings ¹⁰	\$226,684.12 \$1,213,716.70 26,720.64 81,167.23 <u>242,634.92</u> \$1,564,239.49 86%	State's share of transportation and board distributed in proportion to percentage of valuation expended ¹ Aid for manual training ¹	20,000.00 <u>1,000.00</u> \$275,039.65 15%	
	\$1,839,339.15 100%					

Secondary vocational training	Training classes Salaries Supplies (estimated)	\$1,800.00 ¹¹ 225.00 ¹¹ \$2,025.00	School of agriculture Trustees Maintenance Aid for training classes ¹ (paid in Sept., 1912). Salaries	\$1,410.64 ¹² 12,379.02 ¹² \$13,789.66 8,745.00 \$22,534.66
Normal schools			Maintenance ¹³ Purchase of Castleton property ¹³	\$21,888.20 18,000.00 \$39,888.20
Higher and professional education			Univ. of Vermont and Agric. Coll. ¹⁴ Middlebury College ¹⁵ Scholarships School of pedagogy Norwich University ¹⁵	\$26,000.00 \$2,400.00 13,600.00 16,000.00 11,000.00 \$53,000.00
Education of delinquents			Austine Institution ¹⁷ (not for maintenance) State beneficiaries ¹⁸ State industrial school ¹⁹	\$5,000.00 18,093.76 36,962.22 \$60,021.98
Libraries	Maintenance of local libraries ²⁰	\$84,168.61	Office of library commissioner ²¹ Aid to local libraries ²² Traveling libraries ²²	\$2,373.12 2,597.11 817.16 \$5,787.39
Supplementary training of teachers			Educational meetings ²³ Summer schools ²³ State teachers' association ²³	\$819.68 785.42 200.00 \$1,805.10
\$1,805.10				
Grand total		\$1,620,398.90		\$521,722.88
\$2,230,251.78		72.7%		23.4%
100%				\$88,130 3.9%

References, when not otherwise stated, are to Vermont Public Documents, 1911-12.

¹ Quoted by the superintendent of education from the unpublished accounts of 1913 and 1914. ² Auditor, page 378. ³ Auditor, page 377. ⁴ Vermont School Report, 1912, page 190. ⁵ Treasurer, page 62. ⁶ Treasurer, page 71. ⁷ Vermont School Report, 1912, page 67. Also Acts of 1912, No. 72. ⁸ Vermont School Report, 1912, page 190. \$54,136.18 (total) — \$27,415.54 (state aid) = \$26,720.64, or the local share. ⁹ Vermont School Report, 1912, page 190. ¹⁰ Quoted by the superintendent of education and already included in the general expenses for common schools. See above. ¹¹ Auditor, page 380. ¹² Auditor, page 381. ¹³ Auditor, page 384. The \$8130 is the interest on the federal endowment of 1862, and does not appear in the state accounts. See report of the treasurer, University of Vermont and State Agricultural College, 1912. ¹⁴ Auditor, page 384. ¹⁵ Auditor, page 384. ¹⁶ Report of the treasurer, University of Vermont and State Agricultural College, 1912. ¹⁷ Auditor, page 382. ¹⁸ Auditor, page 384. ¹⁹ Auditor, page 384. ²⁰ Ninth Biennial Report of the Free Public Library Commission, pages 109-131. ²¹ Auditor, page 386. ²² Auditor, page 387. ²³ Auditor, page 383.

EDUCATION IN VERMONT

 PROPORTIONAL DISTRIBUTION OF CURRENT EXPENSES
 IN VERMONT PUBLIC SCHOOLS, 1911-12

Total expenditure for all purposes, including local supervision, but excluding grounds and buildings and debts on the same

\$1,673,709.35

Expended for

	<i>Percentage</i>
Teachers' salaries	57.86
Transportation and board	6.04
Water, fuel, and light	5.14
Town and Union superintendents	4.60
Janitors	4.03
Repairs	3.97
Debts on current expenses of 1910-11	3.68
Tuition for advanced instruction	3.24
Miscellaneous items	2.86
Supplies and appliances	2.77
Text-books	2.45
Rent and insurance	.96
Furniture	.78
Tuitions for elementary instruction	.67
School directors	.66
Truant officers	.21
State aid for manual training	.06
Medical inspection	.02
	<hr/> 100.00%

THE VERMONT PUBLIC SCHOOLS IN 1912-13

SUPERVISION: SALARIES OF TOWN AND UNION SUPERINTENDENTS

<i>Salary</i>	<i>Number receiving</i>
\$1000-\$1249	1
1250- 1499	19
1500- 1749	21
1750- 1999	8
2000- 2249	4
2250- 2499	2
2500 and over	2
	<hr/> 57

THE ELEMENTARY SCHOOLS

(a) Age of Elementary Teachers in Vermont Public Schools, 1912-13				(b) Experience of Elementary Teachers in Vermont Public Schools, 1912-13		
Age	Number	Age	Number	Experience in Years	City Teachers Number	Rural Teachers Number
16	2	44	16	8	2	37
17	33	45	8	9	4	79
18	142	46	14	1	33	276
19	226	47	9	2	39	208
20	201	48	4	3	36	182
21	160	49	9	4	34	162
22	153	50	9	5	46	119
23	167	51	7	6	41	62
24	116	52	10	7	29	81
25	124	53	1	8	32	56
26	93	54	5	9	36	35
27	72	55	4	10	26	48
28	80	56	2	11	18	27
29	57	57	1	12	21	27
30	44	58	6	13	14	35
31	52	59	3	14	12	22
32	28	60	2	15	17	17
33	42	61		16	11	10
34	29	62	3	17	7	8
35	34	63		18	12	8
36	30	64		19	5	9
37	29	65	1	20	21	10
38	24	66	1	21	7	8
39	25	67	1	22	7	7
40	17	68		23	5	4
41	19	69		24	4	4
42	11	70	1	25	5	3
43	12			26	6	3
				27	1	1
				28	5	
				29	5	2

(c) Weekly Salaries of Elementary Teachers in Vermont Public Schools, 1912-13

Salary ¹	Number of Teachers			Salary	Number of Teachers		
	City & Village Schools	Rural Schools	Total		City & Village Schools	Rural Schools	Total
\$5.00		15	15	Brought forward	517	1,586	2,103
5.50		5	5	\$29.00		1	1
6.00	4	11	15	31.50	1		1
6.50		3	3	Total	518	1,587	2,105
7.00	10	61	71				
7.50	1	139	140				
8.00	22	345	367				
8.50	5	150	155				
9.00	21	306	327				
9.50	7	63	70				
10.00	61	265	326				
10.50	15	22	37				
11.00	78	79	157				
11.50	36	8	44				
12.00	36	56	92				
12.50	36	11	47				
13.00	59	20	79				
13.50	31	2	33				
14.00	10	5	15				
14.50	27		27				
15.00	17	9	26				
15.50	9	1	10				
16.00	9	1	10				
16.50	4	1	5				
17.00	3		3				
17.50	2	1	3				
18.00	4	4	8				
18.50	1		1				
19.00	2	1	3				
19.50	2	1	3				
20.00							
20.50	1		1				
21.00							
21.50							
22.00	1	1	2				
22.50	1		1				
23.00							
23.50	1		1				
26.50	1		1				
Forward	517	1,586	2,103				

(d) Annual Salaries of Elementary Teachers in Vermont Public Schools, 1912-13			
Salary	City & Village Schools	Rural Schools	Total
\$150-\$174		11	11
175-199		6	6
200-224	6	48	54
225-249		248	248
250-274	6	277	283
275-299	17	207	224
300-324	17	200	217
325-349	13	95	108
350-374	43	102	145
375-399	46	46	92
400-424	42	29	71
425-449	62	35	97
450-474	55	25	80
475-499	28	2	30
500-524	54	4	58
525-549	42	9	51
550-574	15		15
575-599	8	4	12
600-624	20	2	22
625-649	6	1	7
650-674	5	1	6
675-699	2		2
700-724	8	1	9
725-749			
750-774	1	1	2
775-799			
800-824	2	1	3
825 and over	3	2	5
Total	501	1,357	1,858

¹ In nearly all cases salaries below \$7 include board.

EDUCATION IN VERMONT

THE SECONDARY SCHOOLS

The approved high schools in Vermont are grouped below according to the number of full-time teachers employed, and are classified according to the present official classification. Bellows Academy at Fairfax is considered as a private institution.

Four to twenty-one teachers—23

<i>Class</i>	<i>Name</i>	<i>No. of Teachers</i>	<i>Enrolment 1912-13</i>
1	Burlington	21	382
1	Rutland	14	427
1	Barre	10	291
1	Brattleboro	10	235
1	Bennington	9	178
1	Bellows Falls	8	229
1	Middlebury	7	186
1	Montpelier	6	163
1	St. Albans	6	160
1	Springfield	6	144
1	Morrisville	6	125
1	Woodstock	6	129
1	Randolph	5	127
1	Northfield	4	101
1	White River Jct.	4	101
1	Hardwick	5	87
1	Fair Haven	4	95
1	Newport	4	92
1	Brandon	4	80
1	Ludlow	4	77
1	Proctor	4	65
1	Chester	4	63
1	Bradford	4	49
			3,586 64.2%

Two teachers—18

1	Hyde Park	51
1	Chelsea	47
1	Canaan	41
1	Rochester	40
1	Richmond	40
1	Newbury	40
1	Wilmington	37
1	N. Troy	37
1	Hinesburg	37
1	Island Pond	36
1	Jericho	35
1	Wells River	35
1	Orleans	32
1	Franklin	32
3	Milton	26
1	New Haven	20 ¹
1	Highgate	19
1	Danville	18
		623 11.2%

Three teachers—17

<i>Class</i>	<i>Name</i>	<i>Enrolment 1912-13</i>
1	Barton	106
1	Windsor	86 ¹
1	Vergennes	76
1	Stowe	75
1	Bristol	74
1	N. Bennington	68
1	Bethel	67
1	S. Royalton	65
1	Johnson	63
1	Richford	61
1	Enosburg Falls	60
1	Essex Jct.	56
1	W. Rutland	55
1	Pittsford	53
1	Waterbury	51
1	Swanton	48
1	Winooski	31
		1,095 19.6%

One teacher—19

3	Williamstown	25
3	Waitsfield	24
3	Marshfield	21
3	Plainfield	20
3	Pawlet	20
2	Underhill	16
3	Montgomery Center	16
3	S. Londonderry	15
3	Brookfield	15
2	Shoreham	14
3	Weston	14
3	Cabot	12
3	Corinth	11
3	Proctorsville	11
3	Wallingford	11
3	Gayssville	10
4	Benson	10
2	Royalton	10
4	Middletown Springs	5
		280 5%

¹ Enrolment in 1911-12.*Total=77*

2. COMPARISON OF THE LARGE AND SMALL HIGH SCHOOLS IN VERMONT IN RESPECT TO CERTAIN SELECTED FACTORS OF EFFICIENCY

	<i>Schools having 4-22 teachers</i>	<i>Schools having 2 teachers</i>		<i>Schools having 4-22 teachers</i>	<i>Schools having 2 teachers</i>
Percentage of college-trained principals and teachers	95.4 ¹	80.5	Percentage of subjects being taught with advanced college preparation	36.3	23
Percentage of inexperienced principals and teachers	11.6	31	Median number of different subjects taught by principals	4	7
Percentage of new principals and teachers	32	58	Median number of different subjects taught by teachers	3	6
Percentage of subjects taught without school preparation	5.9	10.8	Median number of class periods per week of principals	25	39.5
Percentage of subjects being taught with high school preparation only	10.9	25.5	Median number of class periods per week of teachers	28	39.5
Percentage of subjects being taught with elementary college preparation	46.9	40.7	Median salary of principals	\$1,500.00	\$850.00
			Median salary of teachers	650.00	447.50

3. COMPARISON OF THE LARGE AND SMALL HIGH SCHOOLS IN VERMONT IN RESPECT TO THE COST PER PUPIL OF TEACHING SENIOR LATIN ONE HOUR PER WEEK THROUGH THE YEAR

("Cost" is obtained by dividing the amount of annual salary by the number of periods of instruction per week and the result by the number of pupils in the class)

Schools having 4 teachers or more				Schools having 2 teachers			
<i>Cost</i>	<i>Salary</i>	<i>Class periods per week</i>	<i>Pupils in class</i>	<i>Cost</i>	<i>Salary</i>	<i>Class periods per week</i>	<i>Pupils in class</i>
\$1.08	\$650	30	20	\$2.53	\$800 ²	45	7 ³
1.43	500	35	10 ³	2.67	360	45	3 ³
1.89	850	25	18	3.04	500	41	4 ³
1.92	444	33	7 ³	3.10	418	45	3 ³
2.61	1,700 ²	31	21 ³	3.23	540	33	5 ³
2.66	800	30	10 ³	5.77	450	39	2 ³
2.66	1,800 ²	27	25	6.43	810 ²	42	3 ³
2.75	1,000	22	16	7.14	1,000 ²	35	4 ³
2.78	500	30	6	7.26	850 ²	39	3
3.09	630	34	6	8.00	1,400 ²	35	5 ³
3.14	550	25	7	10.11	445	44	1
3.40	850	25	10	12.34	432	35	1
5.00	600	30	4	14.10	550	39	1
5.25	1,050	40	5	20.00	900 ²	45	1
5.36	1,500 ²	20	14				
5.45	1,500 ²	25	11 ³				
5.51	1,350 ²	24	10				
6.14	600	32	3				
6.33	418	33	2 ³				
8.00	1,000	25	5				
10.00	1,400 ²	35	4				
12.12	1,600 ²	22	6				
15.48	1,300 ²	21	4				
<i>Medians</i> \$3.40	\$850	27	7	\$6.79	\$545	40	3

4. SIZE OF CLASSES IN VERMONT HIGH SCHOOLS

(The figures indicate percentages of the total at the bottom of the column in each case)

<i>Size of Class</i>	<i>Schools with 4 or more teachers</i>	<i>Schools with 3 teachers</i>	<i>Schools with 2 teachers</i>	<i>Schools with 1 teacher</i>	<i>Total</i>
1-3	5	6	14	33	10
4-5	5	10	17	15	10
6-10	16	27	40	39	26
11-15	15	32	19	10	19
16-20	21	12	10	1	14
21-25	20	8		2	12
Over 25	18	5			9
<i>Total Number of Classes</i>	748	361	328	205	1,642

¹Excluding those who teach special branches — commercial, etc., not given by special teachers in the smaller schools.

²Principal. In the simple reckoning used here, "cost" includes expense of supervision, etc., expected from the principal. To be strictly comparable, the teachers and principals should be grouped by themselves; the relation is the same, however, in either case.

³Seniors and juniors combined in one class.

5. PERSONALIA OF HIGH SCHOOL PRINCIPALS IN VERMONT

NUMBER, AGE, AND SALARY	<i>Schools with 4 or more teachers</i> 23	<i>Schools with 3 teachers</i> 17	<i>Schools with 2 teachers</i> 18	<i>Schools with 1 teacher</i> 19	Total 77
1. Number of men	23	17	17	9	66 (85.7% of 77)
2. Number of women			1	10	11 (14.3% of 77)
3. Total	23	17	18	19	77
4. Median age of men	37	33	27	25	29.5
5. Median age of women			25	26.5	26
6. Median age of group	37	33	27	25	29
7. Median salary of men	\$1,500.00	\$1,100.00	\$850.00	\$650.00	\$1,200.00
8. Median salary of women			\$684.00	\$475.00	\$504.00
9. Median salary of group	\$1,500.00	\$1,100.00	\$850.00	\$540.00	\$1,000.00
TRAINING					
10. Graduates of academies and high schools in Vt.	10	8	9	13	40 (51.9% of 77)
11. Graduates of academies and high schools elsewhere	13	8	8	6	35
12. Graduates of normal school		2		1	3
13. Normal school non-graduates				1	1
14. Graduates of colleges in Vermont	5	5	8	5	23 (38.3% of 60)
15. Graduates of colleges elsewhere	18	7	7	5	37 (61.7% of 60)
16. Total graduates	23	12	15	10	60 (77.9% of 77)
17. College non-graduates		3	1	3	7 (9.1% of 77)
18. Without college training		2	2	6	10 (13% of 77)
19. Pedagogical training: none	19	10 ¹	12	16	57 (75% of 76)
20. Pedagogical training: elementary	3	6	6	3	18 (23.7% of 76)
21. Pedagogical training: advanced	1				1 (1.3% of 76)
22. Attended summer schools	12	5	5	6	28 (36.8% of 76)
23. Did graduate study	3		1		4 (5.2% of 76)
24. Reported no later training	6	9	11	10	36 (47.4% of 76)
EXPERIENCE					
25. Elementary school: number experienced	15	8	7	10	40
26. Elementary school: average years	2.1	1.7	4.1	4.6	2.9
27. Elementary school: median years	1	1	.7	3	1.6
28. Secondary schools: number experienced	23	16	11	11	61
29. Secondary schools: average years	11.4	8.2	4.2	4.4	7.9
30. Secondary schools: median years	10	4.5	3	1	5
PRESENT WORK					
31. Total number of subjects now taught	90	89 ¹	116	139	434
32. Average number of subjects now taught	3.9	5.5	6.4	7.3	5.6
33. Average number of subjects taught for first time	.6	.9	3.7	3.6	2.1
34. Median average experience per subject (in years)	5.2	3.8	2.1	1.5	3.3
35. Subjects taught without school preparation	7	6 ¹	16	12	41 (9.4% of 434)
36. Subjects taught with high school preparation only	12	17 ¹	23	44	96 (22.1% of 434)
37. Subjects taught with elementary college or normal school preparation	54	48 ¹	58	67	227 (52.3% of 434)
38. Subjects taught with advanced college or normal school preparation	17	18 ¹	19	16	70 (16.2% of 434)
39. Median number of class periods per week	25	33	39.5	48	35
40. Highest number of class periods per week	42	45	52	84	84
41. Lowest number of class periods per week	14 ²	25	33.3	35 ³	14

¹ Sixteen principals reporting.² Except in Burlington, where the work of the principal is almost wholly supervision.³ Two exceptional part-time cases with fewer hours are omitted.

6. PERSONALIA OF FULL-TIME TEACHERS IN 58 HIGH SCHOOLS IN VERMONT¹
(Principals are omitted. Figures in parentheses in the first three columns indicate percentages)

NUMBER, AGE, AND SALARY	<i>Schools with 4 or more teachers 23</i>	<i>Schools with 3 teachers 17</i>	<i>Schools with 2 teachers 18</i>	<i>Total 58</i>
1. Number of men	20	2		22
2. Number of women	103	32	18	153
3. Total	123	34	18	175
4. Median age of men	28	30		28
5. Median age of women	27	24	26	26
6. Median age of group	27	24	26	26
7. Median salary of men	\$1,025.00	\$469.00		\$1,025.00
8. Median salary of women	\$630.00	\$513.00	\$417.50	\$600.00
9. Median salary of group	\$650.00	\$513.00	\$417.50	\$600.00
TRAINING				
10. Graduates of academies and high schools in Vt.	57 (46.3)	21 (61.1)	10 (55.6)	88 (50.3% of 175)
11. Graduates of academies and high schools elsewhere	64 (52)	12 (35.3)	8 (44.4)	84 (48% of 175)
12. Graduates of normal schools in Vermont	2	4	1	7
13. Graduates of normal schools elsewhere	12	1		13
14. Normal school non-graduate	1			1
15. Graduates of colleges in Vermont	26	17	3	46 (34.6% of 133)
16. Graduates of colleges elsewhere	69	9	9	87 (65.4% of 133)
17. Total graduates	95 (77.2)	26 (76.5)	12 (6.66)	133 (76% of 175)
18. College non-graduates	8	1	1	10 (5.7% of 175)
19. Without college training	20	7	5	32 (18.3% of 175)
20. Attended schools of business, music, elocution, etc.	14	2		16 (9.1% of 175)
21. Pedagogical training: none	62 (50.4)	14 (42.4)	9 (50)	85 (48.6% of 175)
22. Pedagogical training: elementary	57 (46.3)	20 (57.6)	9 (50)	86 (49.1% of 175)
23. Pedagogical training: advanced	4 (3.3)			4 (2.3% of 175)
24. Attended summer schools	33 (26.8)	6 (18.2)	6 (33.3)	45 (25.7% of 175)
25. Did graduate study	6	1	1	8 (4.6% of 175)
EXPERIENCE				
26. In elementary schools: number experienced	40 (32.5)	15 (45.5)	8 (44.4)	63 (36% of 175)
27. In elementary schools: average years	4.6	2.5	3.9	3.7
28. In elementary schools: median years	3	1	2	2
29. In secondary schools: number experienced	106	21	14	141 (80.6% of 175)
30. In secondary schools: average years	5.6	3.8	3	5
31. In secondary schools: median years	4	2.1	1.3	3
PRESENT WORK				
32. Total number of subjects now taught	349 ²	144	88	581
33. Average number of subjects now taught	2.8	4.4	4.9	3.3
34. Average number of subjects taught for first time	.9	2.1	2.1	1.8
35. Subjects taught without school preparation	19 (5.4)	5 (3.5)	6 (6.8)	30 (5.2% of 581)
36. Subjects taught with high school preparation only	36 (10.3)	16 (11.1)	29 (33)	81 (13.9% of 581)
37. Subjects taught with elementary college or normal school preparation	152 (43.6)	64 (44.4)	25 (28.4)	241 (41.5% of 581)
38. Subjects taught with advanced college or normal school preparation	142 (40.7)	59 (41)	28 (31.8)	229 (39.4% of 581)

¹ Teachers of training-classes are not included. Data concerning schools with one teacher will be found with the "Principals."

² One teacher not reporting.

7. COLLEGES AT WHICH THE PRINCIPALS AND TEACHERS IN VERMONT HIGH SCHOOLS WERE TRAINED

COLLEGES	I Schools with 4 or more teachers		II Schools with 3 teachers		III Schools with 2 teachers		IV Schools with 1 teacher	Total
	Teachers	Principals	Teachers	Principals	Teachers	Principals	Principals	
Middlebury	13	2	11	2	2	3	4	37
University of Vermont	13	3	6	3	1	4	1	31
Mt. Holyoke	18		2		1	1		22
Smith	15		2		1			18
Dartmouth	2	6		4		4	1	17
Wellesley	9		1		1			11
Boston University	5				1	1		7
Brown	2	1			1			4
Yale	1	3						4
Radcliffe	2		1		1			4
Teachers College	2	1						3
Colby	1	1			1			3
Tufts	2			1				3
Amherst	1	1		1				3
Bowdoin	1						1	3
Bates		2	1					3
Williams		1	1				1	3
Syracuse University					1	1	1	3
St. Lawrence University	1						1	2
University of Minnesota	1							1
Clark	1							1
Hamilton	1							1
Barnard	1							1
Univ. of New Brunswick	1							1
Berea	1							1
Western Reserve	1							1
University of Chicago		1	1					1
Rhode Island State				1				1
Colgate					1			1
Ripon						1		1
Norwich								1
Total	95	23	26	12	12	15	10	193

8. NUMBER OF PERIODS PER WEEK OF RECITATION REQUIRED OF PRINCIPALS AND THE AVERAGE NUMBER REQUIRED FROM TEACHERS IN VERMONT HIGH SCHOOLS TOGETHER WITH THE AVERAGE CLASS MEMBERSHIP¹

I Schools with 4 or more teachers				II Schools with 3 teachers				III Schools with 2 teachers				IV Schools with 1 teacher		
Principals		Teachers		Principals		Teachers ⁵		Principals		Teachers		Principals		
Pe- riods	Class Mem- bership	Pe- riods	Class Mem- bership	Pe- riods	Class Mem- bership	Pe- riods	Class Mem- bership	Pe- riods	Class Mem- bership	Pe- riods	Class Mem- bership	Pe- riods	Class Mem- bership	
0	0	22	22	25	9	27	17	33	5	30	9	15 P.T.	5	
14	37	22	18	25	16	29	14	35	8	33	8	25 ³ P.T.	12	
14	21	24	22	26 ²	8	31	11	35	7	34	6	35 ³ P.T.	5	
16	24	25	18	27 ²	17	31	12	35	8	35	7	40 ³	5	
20	22	25	20	30	13	31	18	37	16	35	6	40 ²	4	
20	16	26	17	30	12	31	17	38	12	38	9	43	10	
20	9	27	21	30	11	35	10	38	10	39	10	45	6	
20	21	27	17	30 ²	6	35	14	38	9	39	8	45 ³	6	
21	10	28	19	33	11	35	16	39	8	39	10	48	4	
22	14	28	21	33	8	35	10	40	6	40	9	48	6	
24	15	28	19	33	9	35	10	40	4	40	9	48 ²	5	
25	9	28	16	35	11	35	6	43 ²	7	41	8	50 ²	7	
25	15	29	13	35	9	38	12	43 ³	7	43	7	50 ³	6	
27	20	30	13	37	15	40	11	44 ³	9	44	8	50 ³	4	
27	15	30	20	39	24	41	12	45	13	45	8	52 ⁴	11	
28	13	31	19	39	14	45	9	45 ³	8	45	7	53 ³	5	
28	19	31	13	45 ²	5			47 ³	7	48	10	56 ³	8	
29	10	32	12					52 ²	9	55	15	60 ⁴	4	
31	12	32	18									84 ⁴	4	
31	20	33	10											
33	17	33	16											
35	16	35	7											
42	11	38	14											
Medians	25	15	28	18	33	11	35	12	39.5	8	39.5	8	48	5

¹ Classes in commercial subjects and in all special branches have been omitted in estimating the average class membership. ² Periods average 35 min. ³ Periods average 30 min. ⁴ Periods average 25 min.

⁵ One school failed to report. P.T. = Part time.

**9. SALARIES OF PRINCIPALS AND AVERAGE SALARIES OF FULL-TIME TEACHERS IN
VERMONT HIGH SCHOOLS, 1912-13**

Schools with 4 or more teachers		Schools with 3 teachers		Schools with 2 teachers		Schools with 1 teacher
<i>Principals</i>	<i>Teachers</i>	<i>Principals</i>	<i>Teachers</i>	<i>Principals</i>	<i>Teachers</i>	<i>Principals</i>
\$1,050	\$431	\$850	\$324	\$675	\$360	\$180
1,100	476	1,000	450	684	360	450
1,200	500	1,000	456	700	396	450
1,250	504	1,000	457	800	432	450
1,300	508	1,000	475	800	432	468
1,350	558	1,000	500	800	432	500
1,350	574	1,100	503	810	432	504
1,350	583	1,100	504	850	432	540
1,400	583	1,100	520	850	445	540
1,500	616	1,200	525	850	450	540
1,500	621	1,200	526	850	450	550
1,500	650	1,200	550	900	468	600
1,600	650	1,250	550	900	475	600
1,600	700	1,300	550	950	500	650
1,700	705	1,300	590	1,000	500	650
1,700	733	1,300	595	1,000	518	720
1,700	760	1,400	625	1,200	540	720
1,750	764			1,400	550	725
1,800	766					850
2,000	777					
2,000	800					
2,400	834					
2,400	844					
<i>Median</i> \$1,500	\$650	\$1,100	\$520	\$850	\$447	\$540

**COUNTY DISTRIBUTION OF VERMONT STUDENTS ATTENDING
VERMONT'S INSTITUTIONS OF HIGHER EDUCATION**

COUNTY	UNIVERSITY OF VERMONT			MIDDLEBURY COLLEGE			NORWICH UNIVERSITY		
	1902-3	1907-8	1912-13	1902-3	1907-8	1912-13	1902-3	1907-8	1912-13
Addison	10	12	7	34	70	64	0	6	0
Bennington	15	21	10	0	8	1	2	5	5
Caledonia	10	9	14	0	4	4	4	5	8
Chittenden	130	116	112	0	1	7	2	3	0
Essex	2	5	2	0	0	2	3	4	0
Franklin	34	32	31	6	4	7	1	7	1
Grand Isle	3	11	3	0	0	0	0	0	0
Lamoille	18	19	15	0	1	3	3	7	1
Orange	18	13	19	0	6	6	7	4	4
Orleans	18	22	14	0	0	4	1	3	2
Rutland	24	18	50	10	21	26	2	7	7
Washington	17	17	25	7	4	5	18	19	23
Windham	12	14	16	1	4	7	7	5	6
Windsor	29	39	32	3	11	17	7	12	5
	340	348	350	61	134	153	57	87	62

RECOMMENDATIONS OF THE VERMONT STATE BOARD OF HEALTH RELATIVE TO SCHOOLS

THE Vermont State Board of Health, responding to the request of the Commission, submitted the following recommendations in regard to changes in the statutes relating to School Hygiene:

First. A date should be fixed at some reasonable time in the future, perhaps five or ten years, on which all schoolhouses in the state must have complied with the regulations of the State Board of Health. It is understood that such regulations would include only such features as are generally recognized by sanitary authorities as essential to healthful schoolhouses; *e.g.*, dirt-tight floors, jacketed stoves, windows of the correct size and properly placed, blackboards of the proper material and properly set, out-houses of sanitary construction and decently cared for, etc.

Second. It is desirable that all towns in the state have medical inspection of public schools under some practical working plan. The purpose of this is primarily to ensure the early detection of disorders and deformities which may prove susceptible to correction, and to eradicate contagious diseases from the public schools.

Third. It is desirable that the Department of Education gather and furnish to the State Board of Health such statistical data as are necessary for the proper discharge of their duties in the supervision of the hygiene of the public schools of the state.

The committee of enquiry heartily endorses these recommendations.

INDEX

INDEX

- A**CADEMIES, 26, 30, 63, 64, 67, 228, 229.
 Agriculture, 8, 11, 21, 22, 24, 127, 132, 133.
 In schools, 11, 46-48, 89, 104, 127-133.
 Principal industry of state, 127.
 State College of, 164-172.
 State School of, 129, 133.
 Agricultural schools of Wisconsin, 133.
 Algebra, 45, 47, 77, 81, 82, 84, 87, 102.
 American College, The, what it stands for, 182.
 American Medical Association, 175.
 Amherst College, 200, 230.
 Arithmetic, 10, 45, 47-49, 103, 116.
 Austine Institution, 27, 34, 223.
- B**ARNARD College, 230.
 Bates College, 230.
 Berea College, 230.
 Biennial school reports, 217.
 Billings, Frederick, 158.
 Board of Normal School Commissioners, 112.
 Board of Penal Institutions, 26.
 Boards of education in other states, 149.
 Books and supplies, 52, 53, 60.
 Boston University, 200, 230.
 Bowdoin College, 230.
 Brooks, Frank H., President E. and T. Fairbanks and Co., 3.
 Brown University, 200, 230.
 Bryn Mawr College, 201.
 Budget of public expenditures for education, 1911-12, 222, 223.
 Burlington, 19, 23, 26, 154, 158, 175, 178.
 Butler, Nicholas Murray, President of Columbia University, 3.
- C**ARNEGIE Foundation for the Advancement of Teaching, The, 4, 6, 7, 174.
 Methods of work of, 6.
 Castleton Normal School, 26, 111-113, 114, *note*, 115, 118, 119, 123, 182.
 Central schools of London, 100, *note*.
 Chemistry, 71, 81, 102, 190.
 Children:
 Ages and school attendance of, 30, 40-42, 64, 65, 144, 145, 220.
 Attending elementary schools, 8, 25.
 Between 5 and 17 years of age, 8.
 Compulsory school attendance of, 30.
 Free text-books for, 30.
 How best to utilize the time of, 131.
 Money needed for teaching of, 14.
 Not in school, 65, 66.
 Not reached by secondary schools, 66.
 Number attending public schools, 25, 26.
 In secondary schools, 65.
 Percentage of, living in the country, 40.
 Native born, 40.
 Play, ingenuity in organizing, 57.
 Present teaching of, radically wrong, 9.
 Studies of, 44-51.
 Transportation of, 39, 60, 61, 137, 139.
 Well taught in practice-teaching schools, 204.
 Clark University, 230.
 Classical course, 81.
 Clement, Percival W., former President, Rutland Railroad, 3.
 Colby College, 230.
 Colgate College, 230.
 College or university, fundamental reasons for existence, 202.
 Colleges drawing Vermont students, 200.
 Where principals and high-school teachers were trained, 230.
 Columbia University, 3, 6, 7, 200.
 Commercial course, 81.
 Commissioner of Education, 150.
 Commissions created, 112.
 Common schools:
 Became free in 1866, 140.
 Board of directors, 27.
 Problem of, 8.
 Sources of income, 32, 33.
 Compulsory education law, 42.
 Conclusions and recommendations, 7-16.
 Connecticut River, 19, 20, 22.
 Consolidated School Fund, 141.
 Converse, John H., 158.
 Cornell University, 200.
- D**ARTMOUTH College, 176, 185, 189, 200, 230.
 Department of Superintendence of National Education Association, 135.
 Direct state support and educational standards, 144, 145.
 Distribution of state funds, 146. [129.
 Domestic science in schools, 88, 103, 104, 128,
 Drawing, 44-47.
 Drinking-cup, common, prohibited, 58.

Educational Commission of Vermont:

- Appreciation of, 7.
- Invites Carnegie Foundation to study educational conditions, 4.
- Letter sent to citizens of Vermont by, 218.
- Meetings held, 4.
- Named by governor, 3.
- Resolution adopted, 4.
- Tabular analysis of replies to letter by, 219.
- Educational expenditures, 33, 34, 90, 91, 144, 159, 161, 168, 180, 189, 222-224.
- Elementary Schools, The, 36-62, 225.
 - Age and attendance of pupils, 30, 40-42, 144, 145, 220.
 - Features of administration of, 39.
 - Proportion of children enrolled, 41.
 - Purpose of, 38.
 - Recommendations, 61, 62.
 - Scope and character of elementary education in Vermont, 38-61.
 - Sources of information, 36, 37.
 - Standards of judgment, 37, 38.
 - Truancy in, 42.
 - Teachers:
 - Age of, 225.
 - Experience of, 225.
 - Number of, 225.
 - Salaries of, 225.
- Elliott, Edward C., Professor, University of Wisconsin, 6.
- Emigration, 20, 21.
- English, 10, 44, 45, 47-49, 54, 77, 81-84, 91, 100, 103, 116, 128, 162, 168, 190.
- English course, 81.
- Estee, James B., Mayor of Montpelier, 4.
- Evening schools, 143.
- Existing educational system, The, 25-35.

FARRINGTON, Edward H., Professor, College of Agriculture of the University of Wisconsin, 7.

- Financial support of public school system, 140-147.
- French, 71, 91, 101, 104.

GEOGRAPHY, 10, 44, 45, 49, 50, 54, 102.

- Geometry, 45, 81, 82, 102.
- German, 71, 77, 91, 101, 104.
- German secondary teachers, 72.
- Governor, The, 3, 7, 23, 26, 29, 155.
- Graded schools, 25, 42, 59.

- Graham, Horace F., State Auditor, 3.
- Grammar, 45, 48, 51, 85.
- Greek, 71, 81, 82, 91.

HAMILTON College, 230.

- Harvard Medical School, 176.
- Harvard School of Education, 6.
- Harvard University, 181, 200, 201.

High schools:

- Accessibility of, 67.
- Age of teachers, 229.
- Number of, 226.
- Causes for withdrawals from, 94.
- Commercial education in, 87, 96, 98.
- Comparison of large and small, 227.
- Curriculum, based upon environment, 100.
 - Inappropriate, 84-87.
 - Mechanical, 83.
 - Modifications of, 100-102.
 - Revision of, 100, 103.
- "Domination of the college," 9, 82.
- Educational opportunity of, 99.
- "General science" course, 102.
- Groups, 97, 98.
- Janitor service, 68.
- Junior, aim to produce successful farmers, 104.
- More teachers than places, 185.
- Number of pupils, 66.
 - Graduates, 95.
 - Recitations per week required from teachers, 230.
 - Teachers, 229.
- Occupations of graduates of, 95, 96.
- Records, 92.
- Rural problem, 97.
- Salaries of teachers of, 98, 231.
- Size of classes in, 227.
- Statistics of, 26.
- Student failures, 86.
- Studies preparing for college, 104.
- Superintendent of, 70.
- Teachers of, 30, 31, 66, 93, 94, 98, 101, 226-229.
- Training-classes, 115, 223.
- Two-teacher, expensive, 98.
- Visited, 63.
- Withdrawals from, 92-94.
- Women form 87 per cent of teachers, 76.
- Hillegas, Milo B., Professor, Teachers College, 6, 62.

- History, 45, 48, 49, 54, 77, 81-86, 101, 116.
 History of Vermont subsidies to Higher Education, 194-198.
 Hunt, George L., clerk of commission, 4.
- I**MMIGRATION, 21.
- J**OHNSON Normal School, 26, 111-113, 114, *note*, 115, 118-120, *note*, 123, 182.
- K**INDERGARTENS, 25, 143.
- L**ATIN, 71, 77, 81-84, 87, 101, 104, 162.
 Latin course, 81.
 Learned, Dr. William S., Harvard School of Education, 6, 110.
 Legislature:
 Acts of, 28, 29, 52, 111-113, 128-130, 140, 141, 148, 155, 156, 164, 194, 196, 197.
 Appropriations by, 13, 27, 111, 112, 128-130, 140, 141, 194-197.
 Composition, 23, 24.
 Provides for Educational Commission, 3.
 Schools established by, 26, 27.
 Leslie, William, public accountant, 7.
 Local support for elementary and secondary schools, 142, 143.
 Tax for school support, 143.
 Lyndon Institute, 130, 131.
 Equipment of, 131.
- M**ANUAL of agriculture issued, 128.
 Manual training in schools, 88, 128, 129, 222.
 Massachusetts Agricultural College, The, 166.
 Massachusetts Institute of Technology, 200.
 Mathematics, 71, 81, 84, 90, 102, 128, 162, 168.
 "Mechanic Arts," 169, 170.
 Translated to mean high-grade engineering, 170.
 Method of the enquiry, The, 4-7.
 Middlebury:
 Population, 178.
 Typical small New England town, 178.
 Middlebury College, 3, 26, 34, 115, 153-156, 164, 178-186, 194-202, 204-206, 223, 230, 231.
 Buildings, 179.
 Campus, 179.
 Charter, 154-156, 178.
 College of Arts and Sciences, 205, 206.
 Cost of student life moderate, 180.
 Courses of instruction, 181.
 Department of engineering, 181.
 Department of pedagogy, 182, 185.
 Endowment, 179.
 Entrance requirements, 183, 184.
 Expenditures, 179, 180.
 Government, 178.
 Growth in student attendance, 184.
 Income, 179.
 Instructing staff, 180.
 Men favored in matter of scholarships, 180.
 Officers of administration, 178.
 Opportunity before it, 184.
 President of, 206, 207.
 Problems, 185.
 Record of attendance, 184.
 Salaries of instructing force, 180.
 Scholarships, 180.
 Service to higher education, 207, 208.
 Tendency to become a women's college, 185.
 Value of buildings and apparatus, 179.
 Women's College established, 178.
 Women students, 184.
 Morrill, Senator Justin S., 164, 168, 170.
 "Morrill Act," The, 164, 169, 170.
 Mt. Holyoke College, 200, 230.
- N**ATURE study, 44, 54.
 Nelson Amendment, 162.
 New England College Entrance Certificate Board, 160, 183, *note*, 191.
 Normal Schools, 26, 27, 111-114, 117, 118, 122, 123, 223, 228, 229.
 Buildings and equipment, 113.
 Castleton, 26, 111-113, 114, *note*, 115, 118, 119, *note*, 123, 182.
 Recommendation to discontinue, 123.
 Inadequacy of, 117, 118, 122.
 Ineffective at present, 16, 117.
 Johnson, 26, 111-113, 114, *note*, 115, 118-120, *note*, 123, 182.
 Recommendation to discontinue, 123.
 Location of, 113.
 Number of graduates of, 114.
 Organization of course of study in, 114.
 Randolph, 26, 111, 112, 114, *note*, 119, *note*.
 Discontinued in 1910, 129.
- Northfield:
 Location of, 187.
 Population of, 187.

Norwich University, 3, 26, 34, 153, 154, 156, 164, 178, 183, 187-198, 201, 208, 223, 230, 231.
 Attendance of students, 192, 193.
 Average salaries, 189.
 Buildings, 188.
 Charter, 154, 156, 187.
 Cost, of buildings, 188.
 To students moderate, 189.
 Curriculum, 190.
 Degrees conferred, 191.
 Dodge, General, 188.
 Dodge-Ellis History, 192.
 Endowment, 188.
 Entrance requirements, 191.
 Expenditure of state money for, cannot be defended, 192.
 Expenditures, 189.
 Founded at Norwich, 187.
 Government, 187.
 Income, 188, 189.
 Instructing staff, 189.
 Laboratories meagre, 188.
 "Military college of the State," 156. [190.
 Military instruction backbone of school life,
 Name "university" unfortunate, 187, 188.
 Occupations of graduates, 192.
 Organization, 187.
 Removed to Northfield, 187.
 Scholarships, 189.
 State subsidy should be withdrawn, 208.
 Tompkins, Captain, 187.

OLSHAUSEN, Dr. George R., United States Bureau of Standards, 7. [199-209.
 Outlook for Higher Education in Vermont, The,

PERMANENT Public School Fund, 140.
 Physics, 77, 102.
 Physiology and hygiene, 44, 48, 50.
 Political pressure, 10, 11.
 Population, 8, 19-21, 220.
 Porter, Eli H., 3.
 Potter, Dr. Nathaniel Bowditch, Assistant Professor of Internal Medicine, Columbia University, 7, 175.
 Poultry raising, 166, 167.
 Practice-teaching, 204. [201.
 Preference for institutions not co-educational,
 Primers and first readers, 44.
 Principals of high schools:
 Age of, 228.

As "head-teacher," 75.
 Changes of, 73.
 Duties of, 74, 75.
 Experience of, 228.
 Number of, 228.
 Number of recitations per week required, 230.
 Preparation of, 71, 72, 228.
 Salaries of, 72, 73, 75, 231.
 Subjects taught, 228.
 Tenure of position among, 73.
 "Professional" instruction, 79, 126.
 Professors, homes for, 207.
 Program of reorganization, 210-214.
 Administrative policy of State Board of Education, 211-214.
 General policies, 210.
 Measures for legislative enactment, 210, 211.
 Public school fund, 32.

RADCLIFFE College, 230. [119, *note*.
 Randolph Normal School, 26, 111, 112, 114, *note*,
 Randolph State School of Agriculture, 129, 133.
 Reading, 44-46, 48, 49.
 Realschulen in Germany, 100, *note*.
 Reason for the enquiry, The, 3, 4.
 Records and accounts, 134-139.
 And meetings, 136.
 Business administration, 134, 135.
 Disbursement of school moneys, 137.
 Financial reports, 135.
 Fiscal year, 135, 136.
 Legal date of reports, 135.
 "Permanent Record," 136.
 Supplies and other expenditures, 138.
 True revenue and expenditures, 134, 135.
 Uniform method of accounting suggested, 134.
 "Regional" schools, 120. [126.
 Relation between education and training, 125,
 Reorganization of agencies for administration, 148-152.
 Rhode Island State College, The, 166, 230.
 Richardson, H. H., 158.
 Ripon College, 230.
 Rural schools:
 Higher salaries for teachers of, 121, 146.
 Number of, 25.
 Pupils of, 8.
 Schoolhouses, 57.
 Teachers of, 8, 10.
 Rutgers College, 169.

- S**
ST. LAWRENCE University, 230.
St. Michael's Roman Catholic College, 26, 153.
Scholarships, 13, 130, 159, 180, 189, 223.
 "School barges," 61.
School census, 25, 30-32, 41, 64, 65, 220.
School committee, 69, 74.
School Fund Consolidation Act, 32, 33.
School furniture 56, 58.
Schoolhouses, 8, 25, 56, 57, 59, 68, 69.
 Rural, 57.
School records and reports, 54, 92.
 "School survey," 4.
Secondary Schools, The, 63-110, 226.
 Age and attendance of pupils, 64-66, 145, 220.
 Committee, 69.
 Comparison of cost per pupil, 90, 91.
 Curriculum, *The*, 81-92.
 Definition of a, 96, 97.
 Differentiation, 66, 67.
 Distribution, 67, 68.
 Number and size of, 66.
 Personnel of administration and instruction, 69-80.
 Physical equipment, 68, 69.
 Product of the, 92-96.
 Recommendations for improvement of, 106-110.
 School material, *The*, 64-66.
 Suggested solution of problem, 97-106.
 Superintendent, *The*, 70, 71.
Simmons College, 200.
Singing, 44, 46.
Smith College, 200, 201, 230.
Special schools, 151.
Special trade schools, 129-131.
 "Speedwell Farms," 131.
Spelling, 44.
State aid to lower schools, 145.
State appropriations for trade schools difficult to obtain, 126.
State Board of Education, 28, 29, 40, 61, 112, 114, 148-152.
 Appointed by governor, 149.
 Reorganization of, recommended, 152.
 Should consist of few members, 149.
State Board of Health, 151, 232.
 Recommendations of, relative to schools, 232.
State Board of Library Commissioners, 27.
State Industrial School, 26.
State influence in education, 148, 149.
State School for Feeble-minded Children, 27.
State School Tax, 32, 140, 145.
State subsidies, 13, 15, 115, 145, 185, 186, 192-198, 205, 208.
State superintendent, 16, 25, 42, 112.
State's duty to elementary and secondary schools, 193.
States furnishing students to Vermont colleges, 201.
Statistical data untrustworthy, 217.
 Gathered from various sources, 217.
Stearns, Miss L. E., chief of Traveling Library Department, Wisconsin Free Library, 7.
Student migration, denominational preferences affect, 201.
 Geographical conditions affect, 202.
Summary of recommendations for the improvement of secondary education in Vermont, 106-110.
Summer schools, 62, 115, 180, 223.
Superintendent of education, 25, 29, 31, 115, 128, 187, 217.
Syracuse University, 200, 201, 230.

T
TACONIC Mountains, 19, 22.
 "Teacher's Manual for Use in the Elementary Schools," 36, 44, 46, 47.
Teachers:
 Age of, 10, 32, 76, 229.
 Changes in personnel, 76.
 Country, 10, 11, 121.
 As janitors, 58.
 Dependent upon text-book, 80.
 Examination and certification of, 31, 32, 50, 51, 116, 117.
 Full-time, 74, 77, 79, 229.
 Improvement of, 33.
 Lack of practice-teaching, 78, 120, 204.
 Meetings, 55, 62.
 Payment of, 10, 32, 34, 39, 42, 43, 72, 73, 78, 98, 121, 122, 138, 224.
 Programs of, 77.
 Requirements of, 80.
 Training of, 111-115.
 High school, 204.
 Training-classes for, 26, 88, 89, 112, 115, 120, 123, 223.
 Numbers in, 115.
 Success of, 119-121.
 Typical rural school, 72.
Teachers College, 6, 230.

- Total resources for elementary and secondary education, 143.
- Town superintendents, 28, 29, 51, 218, 224.
Duties of, 28.
Salaries of, 29, 224.
- Town system, 28.
- Trade education important for girls, 126.
- Trade schools :
Experiments costly, 132.
In Germany, 126.
Necessity for, 126.
- Training, certification, and supply of teachers, 111-124.
- Training-schools, 121-123, 133.
Aims of, 122.
- Transportation aid, 141.
- Tufts College, 200, 201, 230.
- Tuttle, Allison E., President State Teachers' Association, 4.
- UNION superintendents, 28, 29, 52-54, 58, 115, 218, 222, 224.
Duties of, 28.
Handicapped, 54.
Salaries of, 29, 224.
- Union supervision aid, 141.
- Unions for employing professional superintendents, 52.
- United States Bureau of Education, 135.
- United States Bureau of Standards, 7.
- United States Weather Bureau, 159, 189.
- University of Chicago, 200, 230.
- University of Illinois, 169.
- University of Maine, 200.
- University of Minnesota, 169, 230.
- University of Michigan, 200.
- University of New Brunswick, 230.
- University of Vermont and State Agricultural College, 3, 34, 115, 153-156, 158-177, 181, 183, 193-197, 199-205, 223, 230, 231.
- University of Vermont :
Athletic interests, 162.
Buildings, 158.
Charter, 154-156, 158.
College of engineering, a, within the possibilities of, 203.
Committees, 158. [169.
Comparison of policy of different institutions, Corporation, 155.
Cost of buildings, 158.
Tuition and board, 159.
- Dignified and honorable American institution of learning, 162.
- Endowment of, 159.
- Entrance requirements, 160.
- Gifts by graduates, 158.
- Graduate school, a, 204.
- Housing of students, 161, 162.
- Income, 159.
- Location, 154, 158.
- Military drill and instruction, 162. [note.
- Proportion of graduates in the faculties, 160.
- Salaries low, 205.
- Salary expenditures, 161.
- Scholarships, 159.
- Serves interests of higher education, 207, 208.
- Women admitted to the, 161.
- State Agricultural College, 150, 158, 164-172, 203, 223.
Absence of familiar agricultural courses, 166.
"Aggies," 89, 170, 171.
Agricultural courses inadequately adjusted, 165.
Agricultural equipment meagre, 167.
Annual income, 164.
Corporation, 164.
Curricula of, 165, 166.
Equipment of, 164, 165. [168.
Expenditure of gift of U. S. government, Experiment Station, 158, 164, 165, 167, 168, 171, 194, 223.
Functions of, 171.
Laboratory equipment meagre, 164.
Necessity of adequate support, 171, 172.
Number of graduates engaged in practical agriculture, 162.
Reasons for poverty and deficiencies of, 168. [203.
- College of Arts and Sciences, The, 162, 163.
Curricula of, 162, 163.
- College of Engineering, The, 163.
- College of Medicine, The, 172-177.
Admissions to, 174.
Attendance of students, 173, 174.
Building, 172, 173.
Clinical material, 175.
Entrance requirements, 174.
Equipment and value, 173.
Expenditures, 173, 176.
Expenses to students, 173.
Faculty, 173.
Income of, 173.

- Money needed, 176.
- Old medical school, 172.
- State expenditure unjustifiable, 177.
- University of Wisconsin, 6, 7, 169.
- VAIL**, Theodore N., President American Telegraph and Telephone Company, 3, 130, 131.
- Vassar College, 200, 201.
- Ventilation, 57, 59, 69.
- Vermont, 19-24.
 - Acreage of farms, 21.
 - Agriculture, 8, 11, 21, 22, 24, 127, 132, 133.
 - Annual income, 8, 14.
 - Census, 19-21.
 - Chief problem of, 8.
 - Climate of, 19.
 - Dairying, 22.
 - Debt, 24.
 - Development of her agricultural resources, 133.
 - Educational administration in, 12.
 - Educational rivalry in, 197.
 - Emigration, 20, 21.
 - Forestry, 19, 20, 22, 127.
 - General statistics of, for five decades, 220.
 - Geography, 19.
 - Government of, 23, 24.
 - Growth of, 20.
 - History of, 23.
 - Immigration, 21.
 - Industrial population, 220.
 - Judicial authority, 23.
 - Lumber industry, 22.
 - Map of, 18.
 - Marble Company, 192.
 - Military operations in wars, 23.
 - Mines, 22.
 - Obligation to elementary and secondary school system, 197.
 - Population, 8, 19-21, 220.
 - Geographical shifting of, 20.
 - Predominantly agricultural, 21.
 - Proportional distribution of current expenses in public schools, 224.
 - Railroad transportation in, 22.
 - School finances in 1912, 221.
 - School property in, 56.
 - Settlement of, 23.
 - Shape of, 19.
 - Size of, 19.
 - Small, 19.
 - Soil, cultivation of, 19.
 - Supplied, in 1908, more marbles than Italy, 22.
 - Textile manufactures, 22.
 - Tied with Kansas for first place in enrolment of school children, 41.
 - Valuation, 220.
 - Wealth, 22, 220.
- Vermont Colleges :
 - Annual appropriations, 195, 196.
 - Atmosphere of student life in, 154.
 - Charters of, 154-156.
 - Co-education, 199-201.
 - Comparison of men's with women's dormitories, 209.
 - Competition for state subsidies, 196, 197.
 - County distribution of Vermont students attending, 231.
 - Dormitory life, 208. [154.
 - Large proportion of students from other states, Number of students, 199.
 - Problem of wholesome food for students, 209.
 - Relations to the state, 153-157. [195.
 - State expenditures for, increased year by year,
- Vermont School Reports, 81, 127.
- Vermont Schoolmasters' Club, 81.
- Vermont students attending colleges outside state, 200.
- Vermont Teachers' Association, 115.
- Vocational education :
 - Problem of, 125-127.
 - Purpose of, 125.
- Vocational schools, 12, 125-133.
 - Constructive program, A, 131-133.
 - Existing situation in Vermont, 127-129.
 - Forms of, 127.
- WATSON**, John H., Chairman, Judge of Supreme Court, 3.
- Wellesley College, 200, 230.
- Wesleyan University, 181, 200, 201.
- Western Reserve College, 230.
- Williams, Dr. Edward H., 158.
- Williams College, 200, 201, 230.
- Wisconsin Free Library, 7.
- Women in colleges, 159, 161, 178, 180, 182, 184, 185, 199, 200, 209.
- Worcester Polytechnic Institute, 200.
- Writing, 44, 45, 48.
- YALE** University, 181, 200, 201, 230.

UC SOUTHERN REGIONAL LIBRARY FACILITY



AA 001 004 876 7

